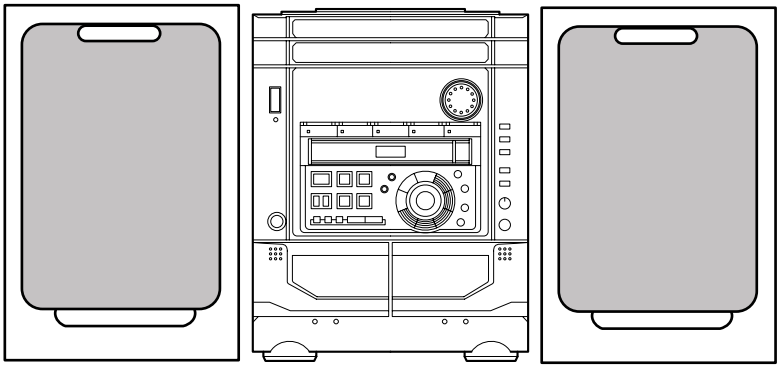
aiwa SERVICE

XR-C303RW LH,U



SERVICE MANUAL

CD-R/CD STEREO
CASSETTE RECEIVER

BASIC TAPE MECHANISM : 2ZM-3MK2 PR4NM
BASIC CD MECHANISM : AZG-1 ZD3RMDM
BASIC CD-R MECHANISM : CRD-RA1

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
XR-C303RW	CX-NC303RW	SX-WNC303	RC-ZAS01

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" XR-C303RW (LH,U), (S/M Code No. 09-004-433-4T1).
- If requiring information about the CD mechanism, see Service Manual of AZG-1 (S/M Code No. 09-001-335-3N8).

aiwa

S/M Code No. 09-006-433-4R1

REVISION DATA

SPECIFICATIONS

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	16.8 dBf
Antenna terminals	75 ohms (unbalanced)

<AM tuner section>

Tuning range	530 kHz to 1710 kHz (10 kHz step) 531 kHz to 1602 kHz (9 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<Amplifier section>

Mid-high frequency amplifier

Power output*

U:
15 watts per channel, Min.
RMS at 8 ohms, from 200 Hz to 20 kHz, with no more than 1% Total Harmonic Distortion
LH:
Rated: 12 W + 12 W
(8 ohms, T.H.D. 1 %, 1kHz)
Reference: 15 W + 15 W
(8 ohms, T.H.D. 10 %, 1kHz)

Total harmonic distortion

U:
0.06 % (8 W, 1 kHz, 8 ohms, DIN AUDIO)
LH:
0.1% (8 W, 1 kHz, 8 ohms, DIN AUDIO)

Low frequency amplifier

Power output*

U:
45 watts per channel, Min.
RMS at 6 ohms, from 50 Hz to 200 Hz, with no more than 1% Total Harmonic Distortion
LH:
Rated: 37 W + 37 W
(6 ohms, T.H.D. 1 %, 130 Hz)
Reference: 45 W + 45 W
(6 ohms, T.H.D. 10 %, 130 Hz)

Total harmonic distortion

U:
0.06 % (20 W, 130 Hz, 6 ohms, DIN AUDIO)
LH:
0.1% (20 W, 130Hz, 6 ohms, DIN AUDIO)

* without connecting to the SURROUND SPEAKERS

Inputs	VIDEO/AUX: 500 mV DIGITAL IN
Outputs	SPEAKERS HIGH FREQ: accept speakers of 8 ohms SPEAKERS LOW FREQ: accept speakers of 6 ohms SURROUND SPEAKERS: accept speakers of 8 to 16 ohms PHONES (stereo jack): accepts headphones of 32 ohms or more CD DIGITAL OUT (OPTICAL) jack

Compact disc player section (3CD changer)

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

Compact disc recorder section (CD-R/RW Player/ Recorder)

Laser	Semiconductor Laser (λ = 785 ± 5 nm)
Recording Method	Track at Once
Sampling Frequency	44.1 kHz
Harmonic Distortion	Play 0.05% or less (1 kHz, 0 dB) Digital Record 0.05 % or less (1 kHz, 0 dB)

Cassette deck section

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 15000 Hz
Recording system	AC bias
Heads	Deck 1 : Playback head x 1 Deck 2 : Recording/Playback head x 1, erase head x 1

General

Power requirements	U: 120 V AC, 60 Hz LH: 120 V/220 - 230 V/240 V AC switchable, 50/60 Hz
Power consumption	U: 120 W LH: 125 W
Power consumption in standby mode	If the power-economizing mode is ECO OFF: U: 30 W LH: 28 W If the power-economizing mode is ECO ON or ECO AUTO: 0.9 W
Dimensions (W x H x D)	260 x 326 x 370 mm (10 1/4 x 12 7/8 x 14 5/8 in)
Weight	9.3 kg (20 lbs 8 oz.)

Speaker system SX–WNC303

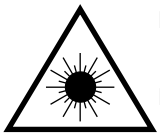
Speaker system	3 way, built-in subwoofer (magnetic shielded type)
Speaker units	Subwoofer: 160 mm (6 3/8 in.) cone type Full range: 100 mm (4 in.) cone type Super tweeter: 20 mm (13/16 in.) ceramic type
Impedance	6 ohms/8 ohms
Sensitivity	87 dB/W/m
Dimensions (W x H x D)	240 x 324 x 270 mm (9 1/2 x 12 7/8 x 10 3/4 in.)
Weight	4.8 kg (10 lbs 9 oz.)

• Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

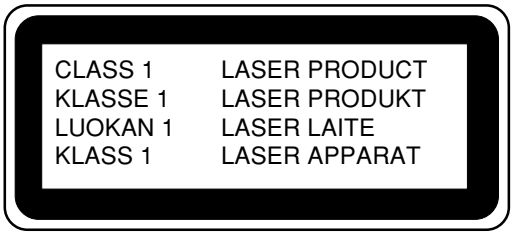
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.

ATTENTION
L'utillisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL
Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



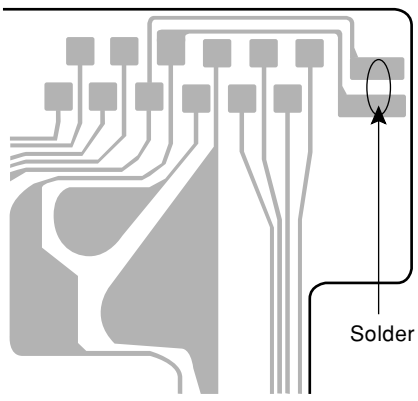
Precaution to replace Optical block

(KSS-213F)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in right figure.

PICK-UP Assy P.C.B



NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, secondary defect can occur.
In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

① Remove the AC power cord.
② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
③ Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
⑤ Check that voltage across C101 and C102 has decreased to 1 V or less using a multimeter or an oscilloscope.

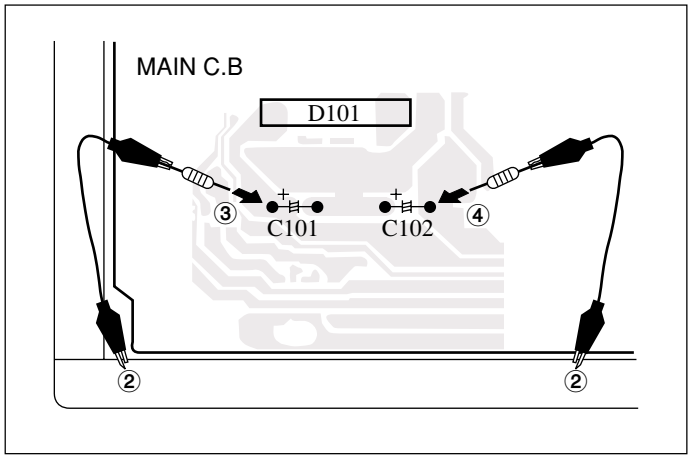


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.
When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

- Good or no good judgement of the MICROCOMPUTER

① Turn on the AC main power.
② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
③ When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

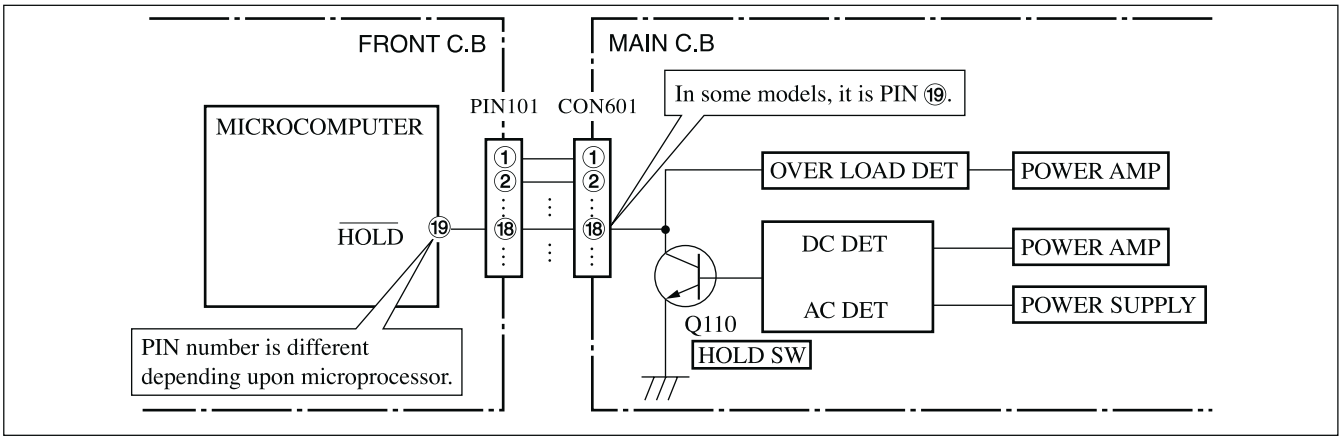


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.
When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

① Remove the AC power cord.

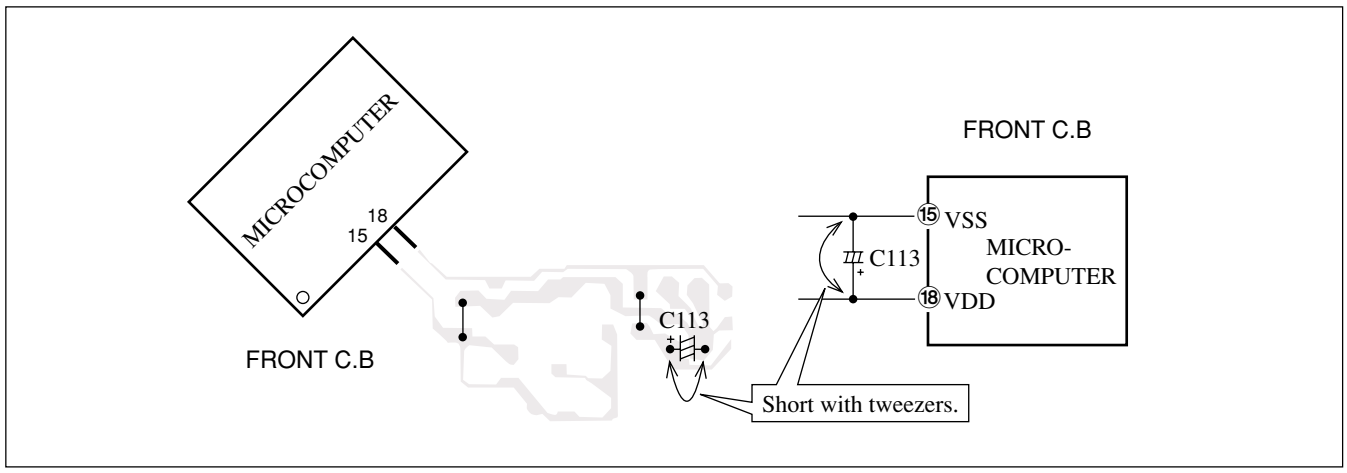


Fig-2-2

② Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.
③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

DISASSEMBLY INSTRUCTIONS

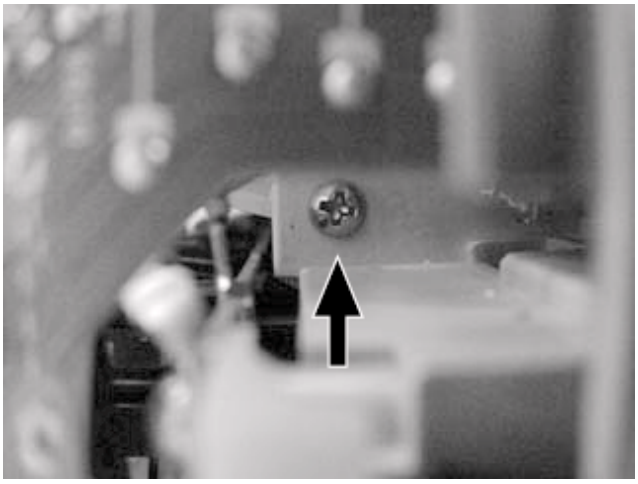
Disassembly Procedure of CD-R/RW Unit

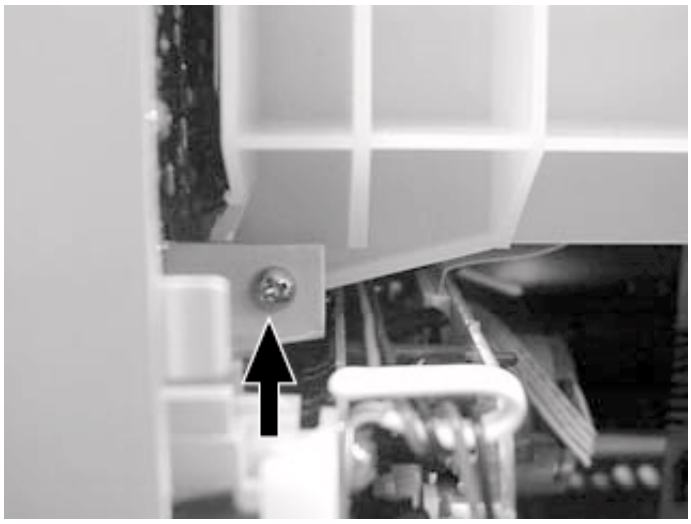
* Remove CABI, TOP PANEL, SIDE L, R and AZG-1 in advance.

1. Open the tray of the CD-R/RW unit.

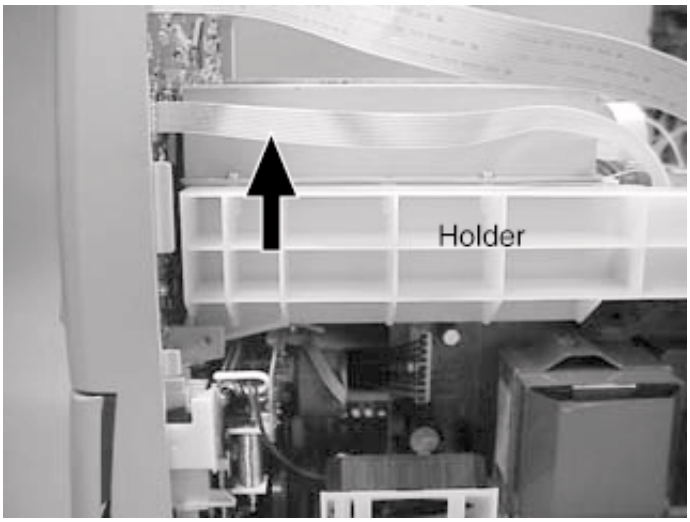
* If the tray does not open for some reason, open it as follows.

1) Remove the screw.

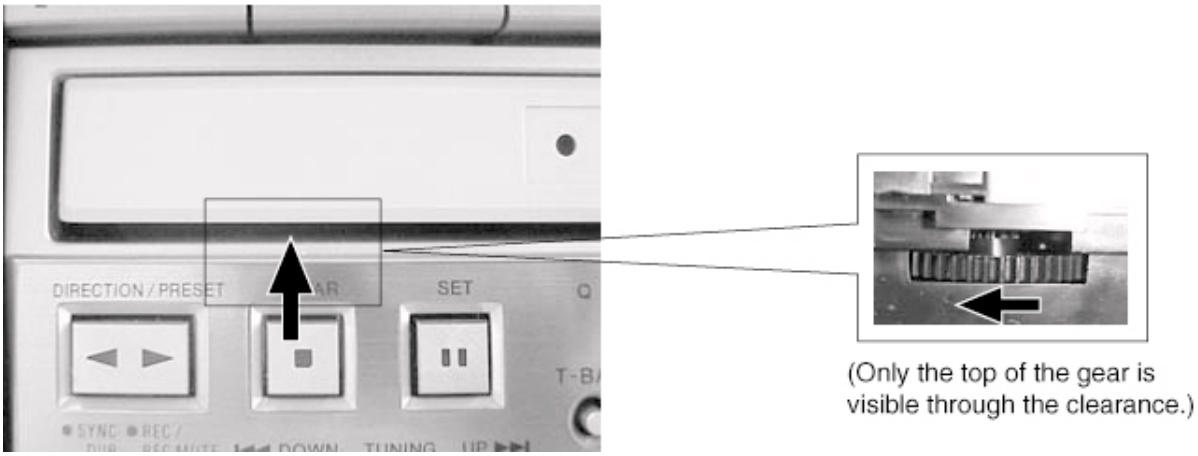




2) Lift up the entire holder.

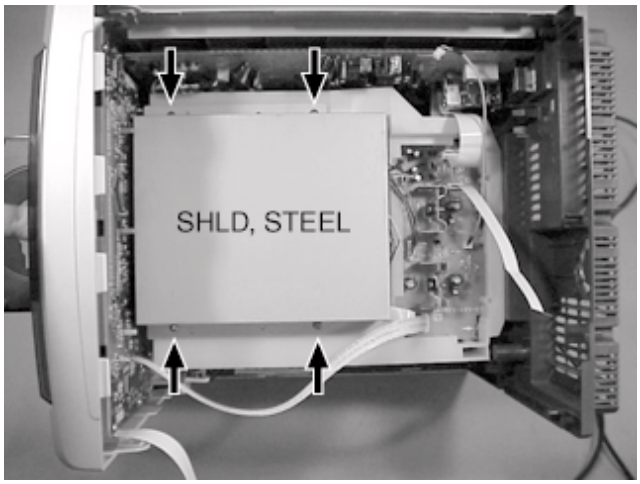


3) Insert a flat screwdriver into the clearance marked by the arrow and rotate the gear in the direction of the right arrow to open the tray.

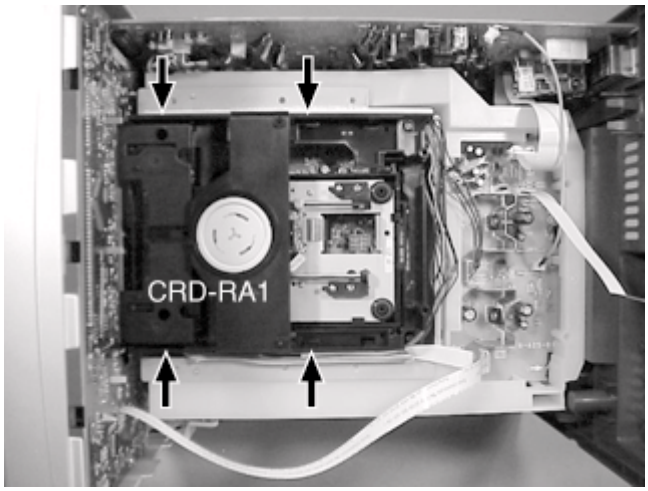


4) Lift up PANEL, CD in the direction of the arrow.

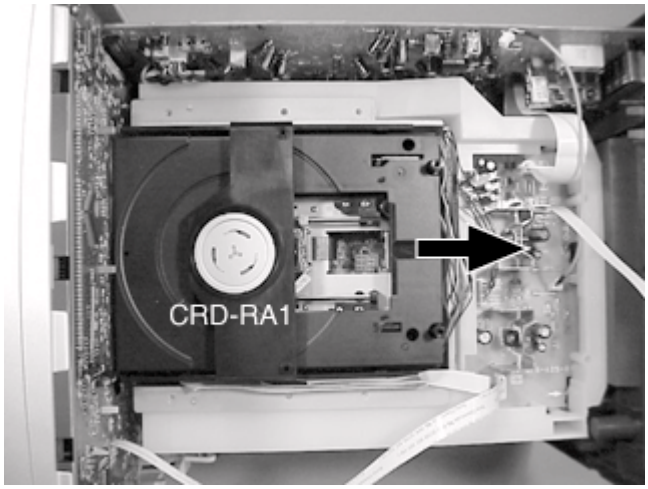
5) Remove the four screws and remove SHLD, STEEL.



6) Remove the four screws.



7) Attach the tray and put the mechanism in the workpiece in this state.



ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	8A-DF8-616-010		C-IC,LC87F65C8AU
	87-A21-482-010		IC,RPM6938-H4
	87-A20-870-010		IC,GP1F37R
	87-A21-021-040		C-IC,BU2099FV
	87-070-289-040		IC,BU 2092F
	87-A21-031-040		C-IC,BU4551BF
	87-A21-416-040		C-IC,M61500FP
	87-A21-023-040		C-IC,BA3835F
	87-070-127-110		IC,LC72131 D
	87-A20-971-040		C-IC,SN74LV14APW
	87-A20-913-010		IC,LA1837NL
	87-020-454-010		IC,DN 6851
	87-A21-419-040		C-IC,NJM14558MD-TE2
TRANSISTOR			
	87-026-245-080		TR,DTC114ES
	87-026-609-080		TR,KTA1266GR
	87-A30-198-080		TR,KTC3199GR
	89-213-702-010		TR,2SB1370E
	87-026-610-080		TR,KTC3198GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-A30-234-080		TR,CSC4115BC
	87-A30-073-080		C-TR,RT1N 141C
	87-A30-186-010		FET,2SK3053
	87-A30-074-080		C-TR,RT1P 141C
	87-026-210-080		CHIP-TR,DTC144EK
	87-A30-190-080		TR,CC5551
	87-A30-137-010		TR,2SD2494
	87-A30-138-010		TR,2SB1625
	87-A30-106-070		C-TR,CMBT5551
	87-A30-107-070		C-TR,CMBT5401
	87-A30-087-080		C-FET,2SK2158
	87-A30-071-080		C-TR,RT1N 144C
	87-A30-256-010		TR,2SD1933
	87-A30-255-010		TR,2SB1342
	87-A30-329-080		TR,CD1585BC
	87-A30-318-080		TR,CSA952K
	87-A30-091-080		FET,2SJ460
	87-A30-090-080		FET,2SK2541
	87-A30-104-080		C-TR,RT1N 441C
	87-A30-085-040		C-TR,CSA1362GR
	89-327-143-080		C-TR,2SC2714O
	87-A30-072-080		C-TR,RT1P 144C
	87-026-463-080		TR,2SA933S
DIODE			
	87-A40-736-080		DIODE,1N4148M(SEM)
	87-A40-547-090		DIODE,D5SBA20
	87-070-274-080		DIODE,1N4003 SEM
	87-A40-777-080		ZENER,UZ30BSB
	87-A40-548-090		DIODE,D3SBA20
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-749-080		ZENER,UZ5.6BSB
	87-A40-393-090		DIODE,1N5402GW(F20)
	87-A40-767-080		ZENER,UZ12BSC
	87-A40-757-080		ZENER,UZ7.5BSC
	87-A40-752-080		ZENER,UZ6.2BSC
	87-A40-739-080		ZENER,UZ2.7BSA
	87-A40-802-080		ZENER,UZ5.1BSC
	87-017-149-080		ZENER,HZS6A2L
	87-A40-745-080		ZENER,UZ4.7BSA
	87-A40-747-080		ZENER,UZ5.1BSB
	87-A40-335-080		ZENER,MTZJ11C T-72
	87-A40-313-080		C-DIODE,MC2840

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
MAIN C.B			
C1	87-012-369-080		C-CAP,S 0.047-50F
C2	87-012-369-080		C-CAP,S 0.047-50F
C3	87-012-368-080		C-CAP,S 0.1-50 F
C4	87-012-368-080		C-CAP,S 0.1-50 F
C5	87-012-368-080		C-CAP,S 0.1-50 F
C6	87-012-368-080		C-CAP,S 0.1-50 F
C9	87-016-658-000		CAP,E 4700-35 M SMG
C10	87-A10-520-000		CAP,E 3300-35 M SMG
C21	87-010-385-080		CAP, ELECT 220-25V
C22	87-010-385-080		CAP, ELECT 220-25V
C23	87-010-247-080		CAP, ELECT 100-50V
C24	87-010-247-080		CAP, ELECT 100-50V
C25	87-010-430-080		CAP, ELECT 100-63
C26	87-010-263-080		CAP, ELECT 100-10V
C27	87-010-197-080		CAP, CHIP 0.01 DM
C28	87-010-263-080		CAP,E 100-10 M 11L SME<U>
C29	87-010-247-080		CAP, ELECT 100-50V
C30	87-010-381-080		CAP, ELECT 330-16V
C31	87-010-235-080		CAP,E 470-16 SME
C32	87-010-405-080		CAP, ELECT 10-50V
C33	87-010-405-080		CAP, ELECT 10-50V
C34	87-012-368-080		C-CAP,S 0.1-50 F
C35	87-010-198-080		CAP, CHIP 0.022
C36	87-010-198-080		CAP, CHIP 0.022
C40	87-010-112-080		CAP, ELECT 100-16V
C50	87-010-182-080		C-CAP,S 2200P-50 B
C51	87-010-180-080		C-CER 1500P
C61	87-010-260-080		CAP, ELECT 47-25V
C62	87-010-403-080		CAP, ELECT 3.3-50V
C91	87-010-401-080		CAP, ELECT 1-50V
C92	87-010-374-080		CAP, ELECT 47-10V
C93	87-010-380-080		CAP, ELECT 47-16V
C101	87-010-178-080		CHIP CAP 1000P
C102	87-010-178-080		CHIP CAP 1000P
C103	87-010-402-080		CAP, ELECT 2.2-50V
C104	87-010-402-080		CAP, ELECT 2.2-50V
C107	87-010-406-080		CAP, ELECT 22-50V
C108	87-010-406-080		CAP, ELECT 22-50V
C109	87-010-322-080		C-CAP,S 100P-50 CH
C110	87-010-322-080		C-CAP,S 100P-50 CH
C111	87-010-260-080		CAP, ELECT 47-25V
C112	87-010-260-080		CAP, ELECT 47-25V
C113	87-A10-946-080		C-CAP,S 220P-100 J CH
C114	87-A10-946-080		C-CAP,S 220P-100 J CH
C117	87-010-400-080		CAP, ELECT 0.47-50V
C118	87-010-400-080		CAP, ELECT 0.47-50V
C121	87-010-178-080		CHIP CAP 1000P
C122	87-010-178-080		CHIP CAP 1000P
C123	87-010-176-080		C-CAP,S 680P-50 SL
C124	87-010-176-080		C-CAP,S 680P-50 SL
C125	87-012-368-080		C-CAP,S 0.1-50 F
C126	87-012-368-080		C-CAP,S 0.1-50 F
C127	87-012-368-080		C-CAP,S 0.1-50 F
C128	87-012-368-080		C-CAP,S 0.1-50 F
C129	87-010-191-080		C-CAP,S 0.015-50 F
C130	87-010-191-080		C-CAP,S 0.015-50 F
C131	87-010-197-080		CAP, CHIP 0.01 DM
C132	87-010-197-080		CAP, CHIP 0.01 DM
C133	87-010-197-080		CAP, CHIP 0.01 DM
C140	87-012-141-080		C-CAP,S 0.22-16 ZF
C203	87-010-178-080		C-CAP,S 1000P-50 KB
C204	87-010-178-080		C-CAP,S 1000P-50 KB
C209	87-010-403-080		CAP, ELECT 3.3-50V
C210	87-010-403-080		CAP, ELECT 3.3-50V
C211	87-010-181-080		CAP,CHIP S 1800P
C212	87-010-181-080		CAP,CHIP S 1800P
C213	87-010-405-080		CAP, ELECT 10-50V
C214	87-010-405-080		CAP, ELECT 10-50V

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C215	87-010-322-080		C-CAP,S 100P-50 CH
C216	87-010-322-080		C-CAP,S 100P-50 CH
C217	87-010-260-080		CAP, ELECT 47-25V
C218	87-010-260-080		CAP, ELECT 47-25V
C219	87-A10-946-080		C-CAP,S 220P-100 J CH
C220	87-A10-946-080		C-CAP,S 220P-100 J CH
C225	87-012-368-080		C-CAP,S 0.1-50 F
C226	87-012-368-080		C-CAP,S 0.1-50 F
C227	87-010-186-080		CAP,CHIP 4700P
C228	87-010-186-080		CAP,CHIP 4700P
C229	87-010-993-080		C-CAP,S 0.056-25 B
C230	87-010-993-080		C-CAP,S 0.056-25 B
C231	87-010-196-080		CHIP CAPACITOR,0.1-25
C232	87-010-196-080		CHIP CAPACITOR,0.1-25
C233	87-010-190-080		S CHIP F 0.01
C234	87-010-190-080		S CHIP F 0.01
C235	87-016-285-080		CAP,E 47-100SME
C236	87-016-285-080		CAP,E 47-100SME
C237	87-010-322-080		C-CAP,S 100P-50 CH
C238	87-010-322-080		C-CAP,S 100P-50 CH
C239	87-010-196-080		CHIP CAPACITOR,0.1-25
C240	87-010-407-080		CAP, ELECT 33-50V
C243	87-010-407-080		CAP, ELECT 33-50V
C300	87-010-197-080		CAP, CHIP 0.01 DM
C301	87-010-179-080		C-CAP,S 1200P-50 KB
C302	87-010-179-080		C-CAP,S 1200P-50 KB
C303	87-010-179-080		C-CAP,S 1200P-50 KB
C304	87-010-179-080		C-CAP,S 1200P-50 KB
C307	87-010-263-080		CAP, ELECT 100-10V
C308	87-010-263-080		CAP, ELECT 100-10V
C309	87-010-318-080		C-CAP,S 47P-50 CH
C310	87-010-318-080		C-CAP,S 47P-50 CH
C313	87-010-188-080		C-CAP,S 6800P-50 KB
C314	87-010-188-080		C-CAP,S 6800P-50 KB
C315	87-010-263-080		CAP, ELECT 100-10V
C317	87-010-546-080		CAP, ELECT 0.33-50V
C318	87-010-546-080		CAP, ELECT 0.33-50V
C326	87-010-198-080		CAP, CHIP 0.022
C327	87-012-368-080		C-CAP,S 0.1-50 F
C360	87-010-401-080		CAP, ELECT 1-50V
C371	87-010-178-080		CHIP CAP 1000P
C372	87-010-197-080		CAP, CHIP 0.01 DM
C373	87-010-178-080		CHIP CAP 1000P
C374	87-010-197-080		CAP, CHIP 0.01 DM
C399	87-012-140-080		CAP 470P
C401	87-010-544-080		CAP, ELECT 0.1-50V
C402	87-010-544-080		CAP, ELECT 0.1-50V
C403	87-010-321-080		CHIP CAPACITOR,82P(J)
C404	87-010-321-080		CHIP CAPACITOR,82P(J)
C405	87-010-197-080		CAP, CHIP 0.01 DM
C406	87-010-197-080		CAP, CHIP 0.01 DM
C407	87-010-197-080		CAP, CHIP 0.01 DM
C408	87-010-197-080		CAP, CHIP 0.01 DM
C409	87-010-182-080		C-CAP,S 2200P-50 B
C410	87-010-182-080		C-CAP,S 2200P-50 B
C411	87-010-405-080		CAP, ELECT 10-50V
C412	87-010-405-080		CAP, ELECT 10-50V
C451	87-010-198-080		CAP, CHIP 0.022
C452	87-010-382-080		CAP, ELECT 22-25V
C453	87-010-183-080		C-CAP,S 2700P-50 B
C454	87-010-183-080		C-CAP,S 2700P-50 B
C455	87-010-183-080		C-CAP,S 2700P-50 B
C456	87-010-197-080		CAP, CHIP 0.01 DM
C458	87-010-178-080		CHIP CAP 1000P
C459	87-010-175-080		CAP 560P
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C501	87-010-401-080		CAP, ELECT 1-50V
C502	87-010-401-080		CAP, ELECT 1-50V
C503	87-010-545-080		CAP,E 0.22-50 M 11L SME
C504	87-010-545-080		CAP,E 0.22-50 M 11L SME
C505	87-010-545-080		CAP,E 0.22-50 M 11L SME
C506	87-010-545-080		CAP,E 0.22-50 M 11L SME
C507	87-010-196-080		CHIP CAPACITOR,0.1-25
C508	87-010-196-080		CHIP CAPACITOR,0.1-25
C509	87-A10-300-080		CAP,M 0.027-50J
C510	87-A10-300-080		CAP,M 0.027-50J
C515	87-A10-300-080		CAP,M 0.027-50J
C516	87-A10-300-080		CAP,M 0.027-50J
C605	87-010-179-080		CAP,CHIP S B1200P
C606	87-010-179-080		CAP,CHIP S B1200P
C609	87-010-213-080		C-CAP,S 0.015-50 B
C610	87-010-213-080		C-CAP,S 0.015-50 B
C611	87-010-545-080		CAP, ELECT 0.22-50V
C612	87-010-545-080		CAP, ELECT 0.22-50V
C613	87-010-545-080		CAP, ELECT 0.22-50V
C614	87-010-545-080		CAP, ELECT 0.22-50V
C615	87-010-154-080		CAP CHIP 10P
C616	87-010-385-080		CAP, ELECT 220-25V
C617	87-010-236-080		CAP,E 1000-10 SME
C623	87-010-401-080		CAP, ELECT 1-50V
C624	87-010-401-080		CAP, ELECT 1-50V
C630	87-010-263-080		CAP, ELECT 100-10V
C633	87-010-197-080		CAP, CHIP 0.01 DM
C634	87-010-197-080		CAP, CHIP 0.01 DM
C669	87-010-322-080		C-CAP,S 100P-50 CH
C670	87-010-322-080		C-CAP,S 100P-50 CH
C677	87-010-197-080		CAP, CHIP 0.01 DM
C678	87-010-197-080		CAP, CHIP 0.01 DM
C682	87-010-405-080		CAP, ELECT 10-50V
C683	87-010-196-080		CHIP CAPACITOR,0.1-25
C701	87-010-381-080		CAP, ELECT 330-16V
C702	87-010-404-080		CAP, ELECT 4.7-50V
C703	87-010-197-080		CAP, CHIP 0.01 DM
C704	87-010-197-080		CAP, CHIP 0.01 DM
C709	87-010-322-080		C-CAP,S 100P-50 CH
C710	87-010-196-080		CHIP CAPACITOR,0.1-25
C711	87-010-112-080		CAP, ELECT 100-16V
C712	87-010-196-080		CHIP CAPACITOR,0.1-25
C713	87-010-197-080		CAP, CHIP 0.01 DM
C714	87-010-197-080		CAP, CHIP 0.01 DM
C719	87-010-322-080		C-CAP,S 100P-50 CH
C721	87-010-312-080		C-CAP,S 15P-50 CH
C722	87-010-312-080		C-CAP,S 15P-50 CH
C723	87-010-178-080		CHIP CAP 1000P
C725	87-010-178-080		CHIP CAP 1000P
C727	87-010-196-080		CHIP CAPACITOR,0.1-25
C728	87-010-374-080		CAP, ELECT 47-10V
C751	87-010-197-080		CAP, CHIP 0.01 DM
C755	87-010-197-080		CAP, CHIP 0.01 DM
C756	87-010-197-080		CAP, CHIP 0.01 DM
C757	87-010-318-080		C-CAP,S 47P-50 CH
C758	87-010-149-080		C-CAP,S 5P-50 CH
C759	87-012-156-080		C-CAP,S 220P-50 J CH GRM
C760	87-012-156-080		C-CAP,S 220P-50 J CH GRM
C761	87-010-196-080		CHIP CAPACITOR,0.1-25
C762	87-010-197-080		CAP, CHIP 0.01 DM
C763	87-010-194-080		CAP, CHIP 0.047
C764	87-010-319-080		C-CAP,S 56P-50 J CH
C765	87-010-197-080		CAP, CHIP 0.01 DM
C766	87-010-197-080		CAP, CHIP 0.01 DM
C767	87-010-405-080		CAP, E 10-50V
C768	87-010-197-080		CAP, CHIP 0.01 DM
C769	87-010-408-080		CAP, ELECT 47-50V
C770	87-015-821-080		C-CAP 0.047
C771	87-010-407-080		CAP, ELECT 33-50V
C772	87-010-194-080		CAP, CHIP 0.047
C773	87-010-196-080		CHIP CAPACITOR,0.1-25
C774	87-010-263-080		CAP, ELECT 100-10V
C775	87-010-404-080		CAP, ELECT 4.7-50V

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C776	87-010-197-080		CAP, CHIP 0.01 DM
C777	87-010-400-080		CAP, ELECT 0.47-50V
C778	87-010-401-080		CAP, ELECT 1-50V
C779	87-010-401-080		CAP, ELECT 1-50V
C780	87-010-196-080		CHIP CAPACITOR,0.1-25
C781	87-010-405-080		CAP, ELECT 10-50V
C782	87-010-405-080		CAP, ELECT 10-50V
C783	87-015-819-080		CAPACITOR,0.01
C784	87-010-197-080		CAP, CHIP 0.01 DM
C785	87-010-403-080		CAP, ELECT 3.3-50V
C786	87-010-403-080		CAP, ELECT 3.3-50V
C789	87-010-179-080		CAP,CHIP S B1200P
C790	87-010-179-080		CAP,CHIP S B1200P
C791	87-010-405-080		CAP, ELECT 10-50V
C793	87-010-177-080		C-CAP,S 820P-50 KB
C794	87-010-406-080		CAP, ELECT 22-50
C795	87-010-596-080		C-CAP,S 0.047-16 KB
C796	87-010-403-080		CAP, ELECT 3.3-50V
C797	87-010-181-080		C-CAP,S 1800P-50 KB GRM
C798	87-010-181-080		C-CAP,S 1800P-50 KB GRM
C799	87-010-194-080		CAP, CHIP 0.047
C812	87-010-197-080		CAP, CHIP 0.01 DM
C813	87-010-197-080		CAP, CHIP 0.01 DM
C814	87-010-197-080		CAP, CHIP 0.01 DM
C815	87-010-197-080		CAP, CHIP 0.01 DM
C816	87-010-197-080		CAP, CHIP 0.01 DM
C819	87-010-197-080		CAP, CHIP 0.01 DM
C820	87-010-408-080		CAP, ELECT 47-50V
C821	87-010-197-080		CAP, CHIP 0.01 DM
C822	87-010-197-080		CAP, CHIP 0.01 DM
C823	87-010-197-080		CAP, CHIP 0.01 DM
C828	87-010-196-080		CHIP CAPACITOR,0.1-25
C829	87-010-196-080		CHIP CAPACITOR,0.1-25
C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C961	87-010-152-080		C-CAP,S 8P-50 D CH GRM
C981	87-015-785-080		CHIP CAPACITOR,0.1-25 ZF
CF801	87-008-261-010		FLTR, CF SFE10.7MA5
CF802	87-008-261-010		FLTR, CF SFE10.7MA5
CN91	87-A60-619-010		CONN,2P V 2MM JMT
CN92	87-A60-619-010		CONN,2P V 2MM JMT
CN301	87-A60-620-010		CONN,3P V 2MM JMT
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN601	87-099-719-010		CONN,30P TYK-B(X)
CN603	87-099-014-010		CONN,12P 6216 V
CNA1	8Z-NF8-669-110		CONN ASSY,9P VH
FB602	87-008-372-080		FILTER, EMI BL OIRNI
FC603	88-912-121-110		FF-CABLE, 12P 1.25 120MM
FFE801	A8-6ZA-191-130		6ZA-1 FEENM
J201	87-A60-483-010		JACK,DIA6.3 BLK ST W/S KM
J203	87-A60-238-010		TERMINAL,SP 4P (MSC)
J204	87-A60-886-010		JACK,PIN 4P R/W BLUE
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J801	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02
JW811	87-008-372-080		FILTER, EMI BL OIRNI
L101	87-003-383-010		COIL,1UH-S
L102	87-003-383-010		COIL,1UH-S
L201	87-003-383-010		COIL,1UH-S
L202	87-003-383-010		COIL,1UH-S
L451	87-007-342-010		COIL,OSC 85K BIAS
L771	87-A50-266-010		COIL,FM DET-2N(TOK)
L772	87-A91-110-010		FLTR,PCFJZH-450(TOK)
L781	87-005-847-080		COIL,2.2UH(CECS)
L832	87-005-847-080		COIL,2.2UH(CECS)
L981	8Z-ZA1-650-010		COIL,AM PACK4C (TOK)
R020	87-A00-261-080		RES,M/F 0.56-1W J<U>
R129	87-A00-257-080		RES,M/F 0.15-1W J
R130	87-A00-257-080		RES,M/F 0.15-1W J
R131	87-A00-257-080		RES,M/F 0.15-1W J
R132	87-A00-257-080		RES,M/F 0.15-1W J
R165	87-A00-257-080		RES,M/F 0.15-1W J
R166	87-A00-257-080		RES,M/F 0.15-1W J
R231	87-A00-258-080		RES,M/F 0.22-1W J
R232	87-A00-258-080		RES,M/F 0.22-1W J
R233	87-A00-258-080		RES,M/F 0.22-1W J
R234	87-A00-258-080		RES,M/F 0.22-1W J
R265	87-A00-258-080		RES,M/F 0.22-1W J
R266	87-A00-258-080		RES,M/F 0.22-1W J
R392	87-012-349-080		C-CAP,S 1000P-50 CH
R721	87-010-322-080		C-CAP,S 100P-50 CH
R723	87-010-322-080		C-CAP,S 100P-50 CH
SFR451	87-024-355-080		SFR,33K DIA6 H
SFR452	87-024-355-080		SFR,33K DIA6 H
TH101	87-A91-042-080		C-THMS,100K 55001
TH102	87-A91-042-080		C-THMS,100K 55001
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P
X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
X750	87-030-394-010		VIB,CER CSA3.6MGF228

FRONT C.B

C38	87-010-171-080		C-CAP,S 270P-50 SL
C48	87-010-171-080		C-CAP,S 270P-50 SL
C49	87-010-171-080		C-CAP,S 270P-50 SL
C50	87-010-171-080		C-CAP,S 270P-50 SL
C142	87-010-196-080		CHIP CAPACITOR,0.1-25
C143	87-010-196-080		CHIP CAPACITOR,0.1-25
C144	87-010-196-080		CHIP CAPACITOR,0.1-25
C147	87-015-681-040		E/CAP 10-16
C153	87-010-493-040		CAP,E 0.47-50 GAS
C154	87-A10-189-040		CAP,E 220-10
C155	87-010-312-080		C-CAP,S 15P-50 CH
C156	87-010-322-080		C-CAP,S 100P-50 CH
C157	87-A10-189-040		CAP,E 220-10
C158	87-012-155-080		C-CAP 180P-50CH
C159	87-010-196-080		CHIP CAPACITOR,0.1-25
C160	87-010-196-080		CHIP CAPACITOR,0.1-25
C161	87-016-460-080		C-CAP,S 0.22-16 B
C162	87-010-178-080		CHIP CAP 1000P
C165	87-012-157-080		C-CAP,S 330P-50 CH
C166	87-010-075-040		CAP,E 10-16 5L
C171	87-010-194-080		CAP, CHIP 0.047
C172	87-A10-797-040		CAP,E 47-35 M 5L SRM
C173	87-010-981-040		CAP,E 22-35 5L SRE
C174	87-010-981-040		CAP,E 22-35 5L SRE
C180	87-010-194-080		CAP, CHIP 0.047
C183	87-010-197-080		CAP, CHIP 0.01 DM
C184	87-010-175-080		CAP 560P
C185	87-010-322-080		C-CAP,S 100P-50 CH
C186	87-010-175-080		CAP 560P
C187	87-010-322-080		C-CAP,S 100P-50 CH
C191	87-012-368-080		C-CAP,S 0.1-50 F
C192	87-010-196-080		CHIP CAPACITOR,0.1-25
C193	87-012-368-080		C-CAP,S 0.1-50 F
C315	87-010-196-080		CHIP CAPACITOR,0.1-25
C401	87-010-560-040		CAP,E 10-50 GAS
C402	87-010-196-080		CHIP CAPACITOR,0.1-25
C403	87-010-318-080		C-CAP,S 47P-50 CH
C404	87-010-318-080		C-CAP,S 47P-50 CH
C405	87-010-318-080		C-CAP,S 47P-50 CH
C406	87-010-318-080		C-CAP,S 47P-50 CH
C407	87-010-318-080		C-CAP,S 47P-50 CH
C408	87-010-318-080		C-CAP,S 47P-50 CH
C409	87-010-196-080		CHIP CAPACITOR,0.1-25
C501	87-010-322-080		C-CAP,S 100P-50 CH
C502	87-010-322-080		C-CAP,S 100P-50 CH
C503	87-010-322-080		C-CAP,S 100P-50 CH
C701	87-010-196-080		CHIP CAPACITOR,0.1-25
C702	87-012-158-080		C-CAP,S 390P-50 CH
C703	87-010-196-080		CHIP CAPACITOR,0.1-25

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C704	87-010-196-080		CHIP CAPACITOR,0.1-25
C705	87-010-196-080		CHIP CAPACITOR,0.1-25
C706	87-010-196-080		CHIP CAPACITOR,0.1-25
C707	87-010-196-080		CHIP CAPACITOR,0.1-25
CN101	87-099-720-010		CONN,30P TYK-B(P)
CN102	87-099-754-010		CONN,13P H 9604
CN251	87-099-750-010		CONN,15P V 9604SC
CN502	87-A60-059-010		CONN,08P V 9604S-08C
FC102	88-913-271-110		FF-CABLE,13P 1.25
FC251	88-915-121-110		FF-CABLE,15P 1.25
FC502	88-908-281-110		FF-CABLE,8P 1.25 280MM
FL101	8A-DF8-601-010		FL,HNA-13MM16T
L151	87-A50-333-010		COIL,OSC 9.43MHZ
LED401	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED402	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED403	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED404	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED405	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED406	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED419	87-A40-589-040		LED,SLR-56VCT31 RED
LED421	87-A40-563-010		LED,SEL6515C-LF62 PGRN
LED422	87-A40-563-010		LED,SEL6515C-LF62 PGRN
LED423	87-A40-563-010		LED,SEL6515C-LF62 PGRN
LED424	87-A40-563-010		LED,SEL6515C-LF62 PGRN
LED425	87-A40-563-010		LED,SEL6515C-LF62 PGRN
LED426	87-A40-563-010		LED,SEL6515C-LF62 PGRN
LED441	87-A40-380-180		LED,SEL6510C-TP5 GRN
LED442	87-A40-380-180		LED,SEL6510C-TP5 GRN
LED443	87-A40-380-180		LED,SEL6510C-TP5 GRN
LED444	87-A40-380-180		LED,SEL6510C-TP5 GRN
LED445	87-A40-380-180		LED,SEL6510C-TP5 GRN
LED446	87-017-980-080		LED,SEL6210S
LED447	87-017-980-080		LED,SEL6210S
LED448	87-017-980-080		LED,SEL6210S
LED449	87-017-980-080		LED,SEL6210S
LED450	87-017-980-080		LED,SEL6210S
S301	87-A91-024-180		SW,TACT KSH0611BT
S302	87-A91-024-180		SW,TACT KSH0611BT
S303	87-A91-024-180		SW,TACT KSH0611BT
S304	87-A91-024-180		SW,TACT KSH0611BT
S305	87-A91-024-180		SW,TACT KSH0611BT
S306	87-A91-024-180		SW,TACT KSH0611BT
S307	87-A91-024-180		SW,TACT KSH0611BT
S308	87-A91-024-180		SW,TACT KSH0611BT
S309	87-A91-024-180		SW,TACT KSH0611BT
S310	87-A91-024-180		SW,TACT KSH0611BT
S311	87-A91-024-180		SW,TACT KSH0611BT
S321	87-A91-024-180		SW,TACT KSH0611BT
S322	87-A91-024-180		SW,TACT KSH0611BT
S323	87-A91-024-180		SW,TACT KSH0611BT
S324	87-A91-024-180		SW,TACT KSH0611BT
S325	87-A91-024-180		SW,TACT KSH0611BT
S326	87-A91-024-180		SW,TACT KSH0611BT
S327	87-A91-024-180		SW,TACT KSH0611BT
S328	87-A91-024-180		SW,TACT KSH0611BT
S329	87-A91-024-180		SW,TACT KSH0611BT
S330	87-A91-024-180		SW,TACT KSH0611BT
S331	87-A91-024-180		SW,TACT KSH0611BT
S341	87-A91-024-180		SW,TACT KSH0611BT
S342	87-A91-024-180		SW,TACT KSH0611BT
S343	87-A91-024-180		SW,TACT KSH0611BT
S344	87-A91-024-180		SW,TACT KSH0611BT
S345	87-A91-024-180		SW,TACT KSH0611BT
S361	87-A91-024-180		SW,TACT KSH0611BT
S362	87-A91-024-180		SW,TACT KSH0611BT
S366	87-A91-024-180		SW,TACT KSH0611BT
S367	87-A91-024-180		SW,TACT KSH0611BT
S368	87-A91-024-180		SW,TACT KSH0611BT
S369	87-A91-024-180		SW,TACT KSH0611BT
S370	87-A91-024-180		SW,TACT KSH0611BT
S371	87-A91-024-180		SW,TACT KSH0611BT
SW162	87-A91-591-010		SW,RTRY RE0121PVB25FINA24
SW163	87-A91-397-010		SW,RTRY 121SL10-12T2

INTERFACE C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C101	87-010-196-080		CHIP CAPACITOR,0.1-25
C103	87-010-196-080		CHIP CAPACITOR,0.1-25
C104	87-010-370-080		CAP,E 330-6.3M SME
C105	87-010-380-080		CAP, ELECT 47-16V
C106	87-010-221-080		CAP, ELECT 470-10 M SME
C107	87-010-196-080		CHIP CAPACITOR,0.1-25 ZF
C121	87-010-196-080		CHIP CAPACITOR,0.1-25
C123	87-010-196-080		CHIP CAPACITOR,0.1-25
C124	87-010-370-080		CAP,E 330-6.3 SME
C125	87-010-380-080		CAP, ELECT 47-16V
C126	87-010-371-080		CAP, ELECT 470-6.3 M SME
C127	87-010-196-080		CHIP CAPACITOR,0.1-25 ZF
C131	87-010-196-080		CHIP CAPACITOR,0.1-25
C136	87-010-252-080		CAP,E 1000-6.3 M SME
C137	87-010-196-080		CHIP CAPACITOR,0.1-25 ZF
C138	87-010-263-080		CAP,E 100-10 M 11L SME
C152	87-010-178-080		CHIP CAP 1000P-50 K B
C201	87-010-402-080		CAP, ELECT 2.2-50V
C202	87-010-402-080		CAP, ELECT 2.2-50V
C205	87-010-196-080		CHIP CAPACITOR,0.1-25 ZF
C401	87-010-178-080		CHIP CAP 1000P
C402	87-010-178-080		CHIP CAP 1000P
C403	87-010-196-080		CHIP CAPACITOR,0.1-25
C404	87-010-196-080		CHIP CAPACITOR,0.1-25
C411	87-012-140-080		CAP 470P
C421	87-010-196-080		CHIP CAPACITOR,0.1-25
CN291	87-A60-061-010		CONN,06P V 9604S-06C
CN401	87-A60-619-010		CONN,2P V 2MM JMT
CN901	87-A60-056-010		CONN,12P V 9604S-12C
CN902	87-A60-059-010		CONN,08P V 9604S-08C
CN903	87-A60-957-010		CONN,9P V TOC-B
CNA101	8A-DF8-633-010		CONN ASSY,6P REG 360MM
CNA201	8A-DF8-634-010		CONN ASSY,3P AOUT 250MM
CNA301	8A-DF8-635-010		CONN ASSY,4P AIN 250MM
CNA401	87-NB7-615-010		CONN ASSY,2P SHIELDPH/PH
FB101	87-003-149-080		COIL,47UH J LALO2
FB105	87-008-372-080		FLTR,EMI BL01 RN1
FB106	87-008-372-080		FLTR,EMI BL01 RN1
FB107	87-008-372-080		FLTR,EMI BL01 RN1
FB401	87-A50-189-080		C-COIL,S BLM21B272S
FC291	88-906-171-110		FF-CABLE,6P 1.25
FC903	8A-DF8-631-010		FF-CABLE,9P 1.0 250MM
JW208	87-008-474-080		F-BEAD,BL02RN1-R62T2 EMI

PT C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C1	87-010-387-080		CAP,E 470-25 SME
C4	87-010-403-080		CAP, ELECT 3.3-50V
C8	87-010-917-000		CAP,E 3300-50 M SMG
C9	87-010-917-000		CAP,E 3300-50 M SMG
C10	87-A11-148-080		CAP,TC U 0.1-50 Z F
C11	87-A11-148-080		CAP,TC U 0.1-50 Z F
CN1	87-A60-851-010		CONN,9P V VH
⚠ F1	87-026-691-080		FUSE,10A 125V 251<U>
⚠ F2	87-A90-210-080		FUSE,7A 125V 251<U>
⚠ F3	87-A90-210-080		FUSE,7A 125V 251<U>
⚠ F4	87-A90-210-080		FUSE,7A 125V 251<U>
⚠ F5	87-A90-210-080		FUSE,7A 125V 251<U>
⚠ PR2	87-A90-195-080		PROTECTOR,7A 491 SERIES 60V<LH>
⚠ PR3	87-A90-195-080		PROTECTOR,7A 491 SERIES 60V<LH>
⚠ PR4	87-A90-195-080		PROTECTOR 7A 491 SERIES 60V<LH>
⚠ PR5	87-A90-195-080		PROTECTOR 7A 491 SERIES 60V<LH>
⚠ PT1	8A-DF8-606-010		PT, ADF8-H<LH>
⚠ PT1	8A-DF8-607-010		PT, ADF8-U<U>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
⚠ PT2	8A-NF8-673-010		PT,SUB ANF-8 (H)KAMI<LH>
⚠ PT2	8A-NF8-661-010		PT,SUB ANF-8 (U)<U>
⚠ RY1	87-A91-418-010		RELAY,AC12V G5PA-1-M<U>
⚠ RY2	87-A91-339-010		RELAY,AC DC12V G5PA-2<LH>
⚠ S1	87-A90-165-010		SW,SL 1-2-3 SWS2301<LH>
⚠ T1	87-A60-317-010		TERMINAL, 1P MSC
⚠ T2	87-A60-317-010		TERMINAL, 1P MSC

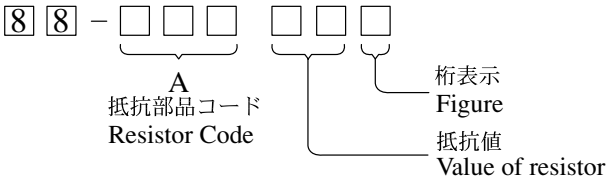
DECK C.B

CON105	87-099-756-010		CONN,15P 9604S F
SFR1	87-024-581-010		SFR,3.3K DIA 6H
SOL1	82-ZM1-618-410		SOL ASSY,27
SOL2	82-ZM1-618-410		SOL ASSY,27
SW1	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW2	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW3	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW4	87-036-110-010		SW,MICRO SPPB62
SW5	87-036-110-010		SW,MICRO SPPB62
SW6	87-036-110-010		SW,MICRO SPPB62
SW8	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW9	87-A90-248-010		SW,MICRO ESE11SH2CXQ
W1	82-ZM3-601-010		RBN-CORD,4P-75

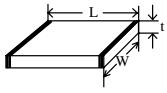
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
HEAD-1 C.B			
	85-ZM3-602-010		PWB,FLEX A
CON301	87-NF6-615-010		CONN ASSY,3P PB
HEAD-2 C.B			
	85-ZM3-602-010		PWB,FLEX A
CON351	87-NF6-616-010		CONN ASSY,8P RPB

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

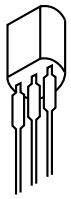
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION

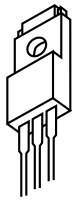


E C B

CSC4115
KTA1266
KTC3198
CSA952
CD1585

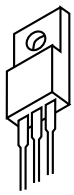
E C B

DTC114ES
KTC3199
2SA933



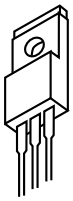
B C E

2SB1370



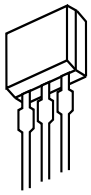
G D S

2SK3053



B C E

2SD2494
2SB1625
2SD1933
2SB1342

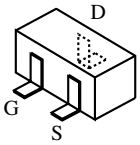


S D G

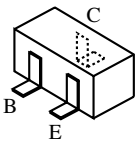
2SJ460
2SK2541

E C B

CC5551



2SK2158

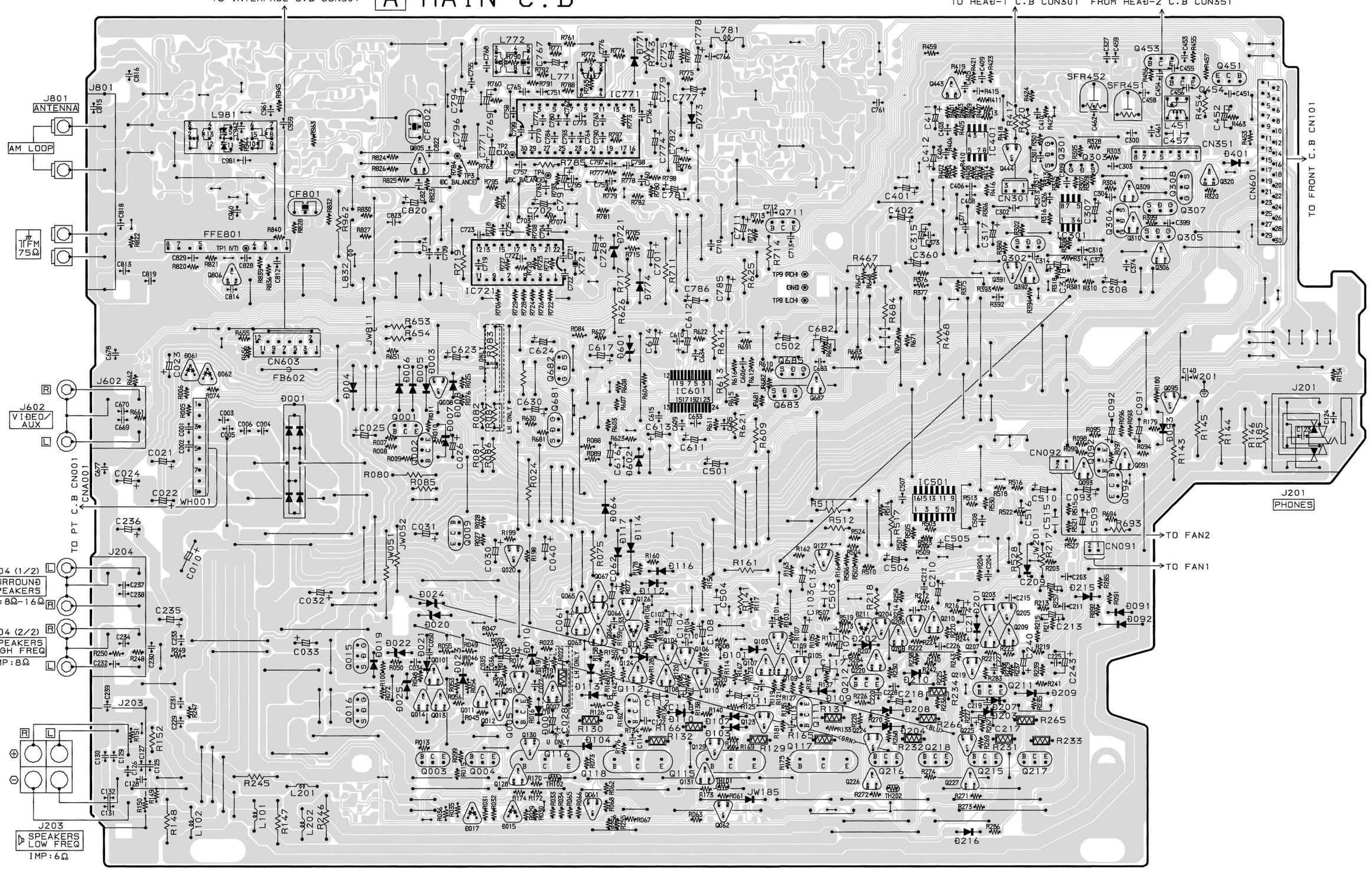


2SA1235	RT1P144C
2SC2714	RT1N141C
2SC3052	RT1N441C
DTC144EK	CMBT5551
RT1N144C	CMBT5401
RT1P141C	CSA1362

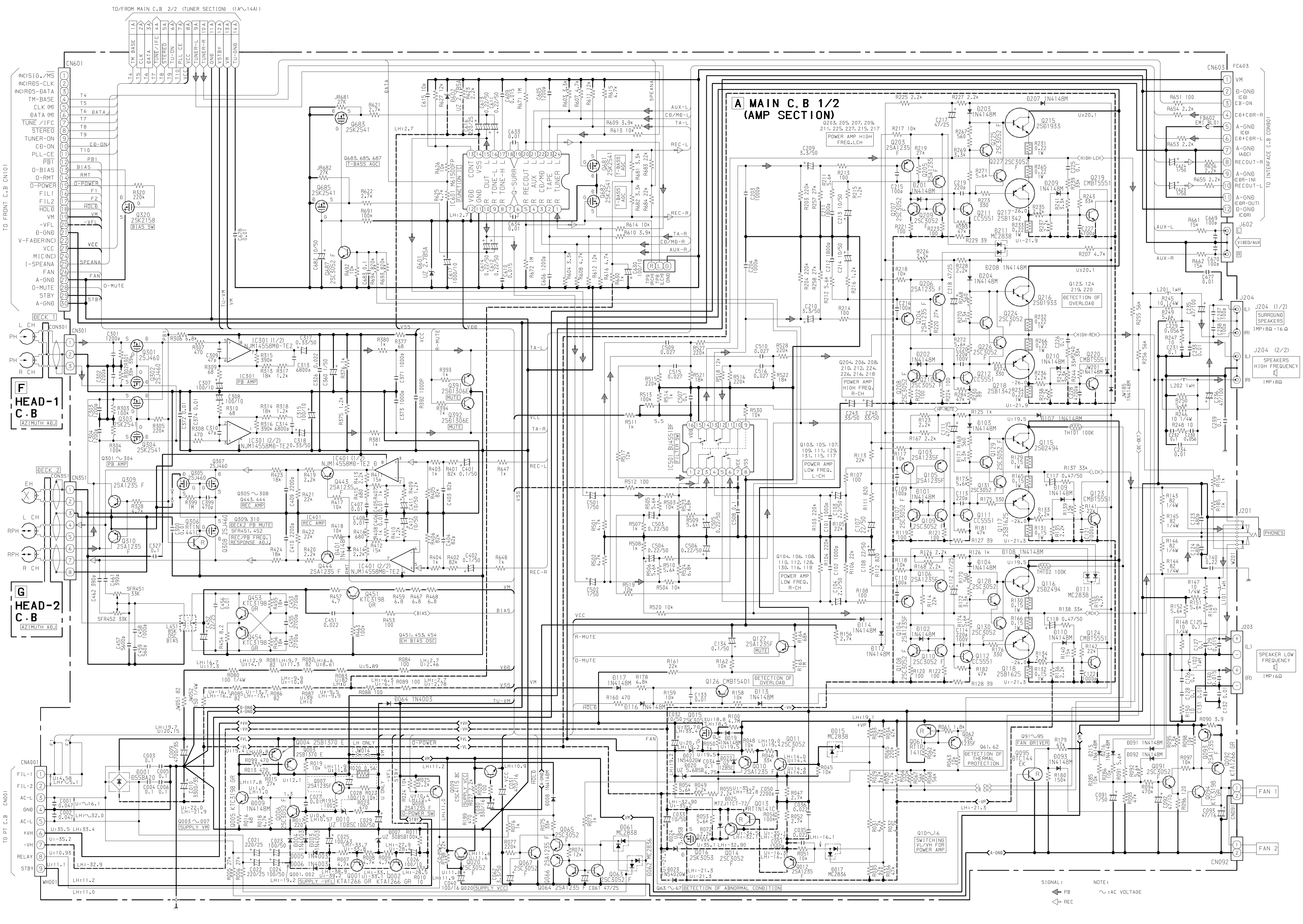
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

A B C D E F G H I J K L M N O P Q R S T U

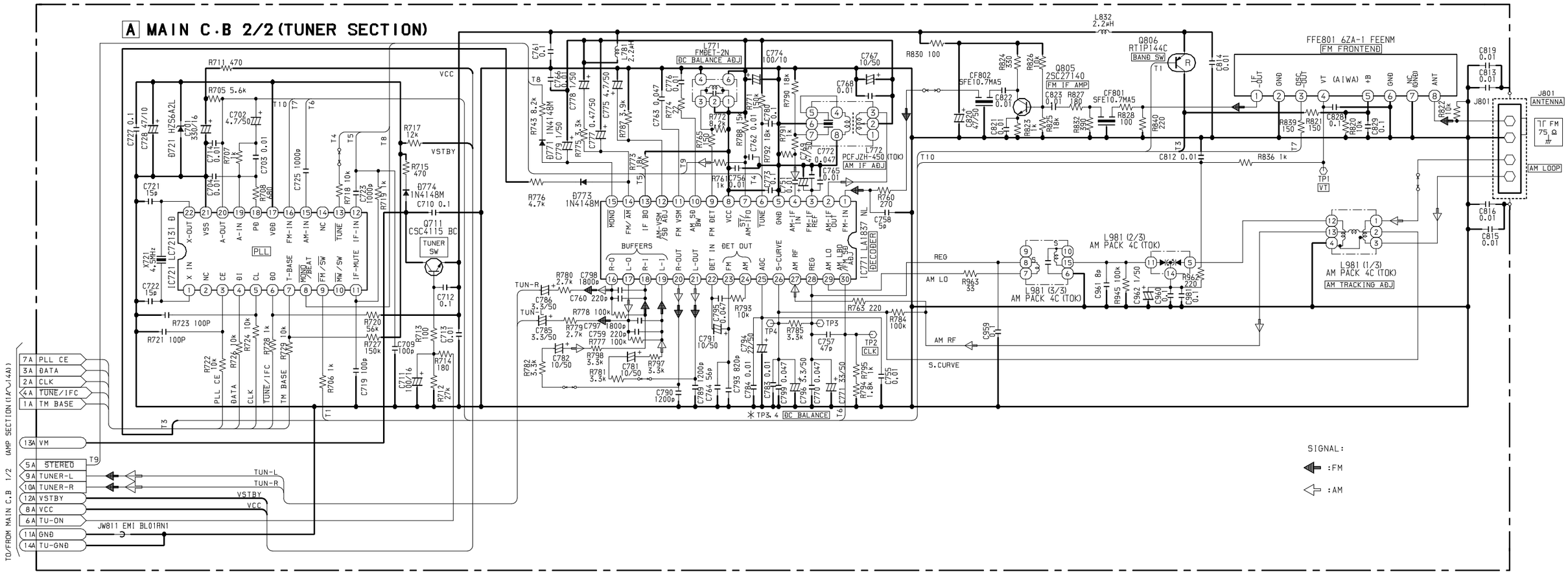
A MAIN C.B



SCHEMATIC DIAGRAM - 1 (MAIN 1/2 : AMP / HEAD-1 / HEAD-2)


TO/FROM MAIN C.B 2/2 (TUNER SECTION) (1A∼14A)
TO FRONT C.B CN101
CN601
A MAIN C.B 1/2
(AMP SECTION)
TO INTERFACE C.B CON901
CN603
F HEAD-1 C.B
AZIMUTH ADJ
G HEAD-2 C.B
AZIMUTH ADJ
DECK 1
DECK 2
TO PT C.B CN001
CNA001
IC601 M61500FP FUNCTION IC
IC301 NJM14558MD-TE2 PB AMP
IC401 NJM14558MD-TE2 REC AMP
IC501 BU4551BF FILTER SW
Q451, 453, 454 EH BIAS OSC
POWER AMP HIGH FREQ. L-CH
POWER AMP HIGH FREQ. R-CH
POWER AMP LOW FREQ. L-CH
POWER AMP LOW FREQ. R-CH
DETECTION OF OVERLOAD
DETECTION OF THERMAL PROTECTION
Q63∼67 DETECTION OF ABNORMAL CONDITION
Q10∼16 SWITCHING VL/VH FOR POWER AMP
Q91∼95 FAN DRIVER
Q003∼007 SUPPLY VM
Q001, 002 SUPPLY -VFL
Q020 SUPPLY VCC
J204 (1/2) SURROUND SPEAKERS IMP:8Ω-16Ω
J204 (2/2) SPEAKERS HIGH FREQUENCY IMP:8Ω
J203 SPEAKER LOW FREQUENCY IMP:6Ω
J201 PHONES
J602 VIDEO/AUX
FAN 1
FAN 2
CN091
CN092
SIGNAL: PB REC
NOTE: ∼ :AC VOLTAGE

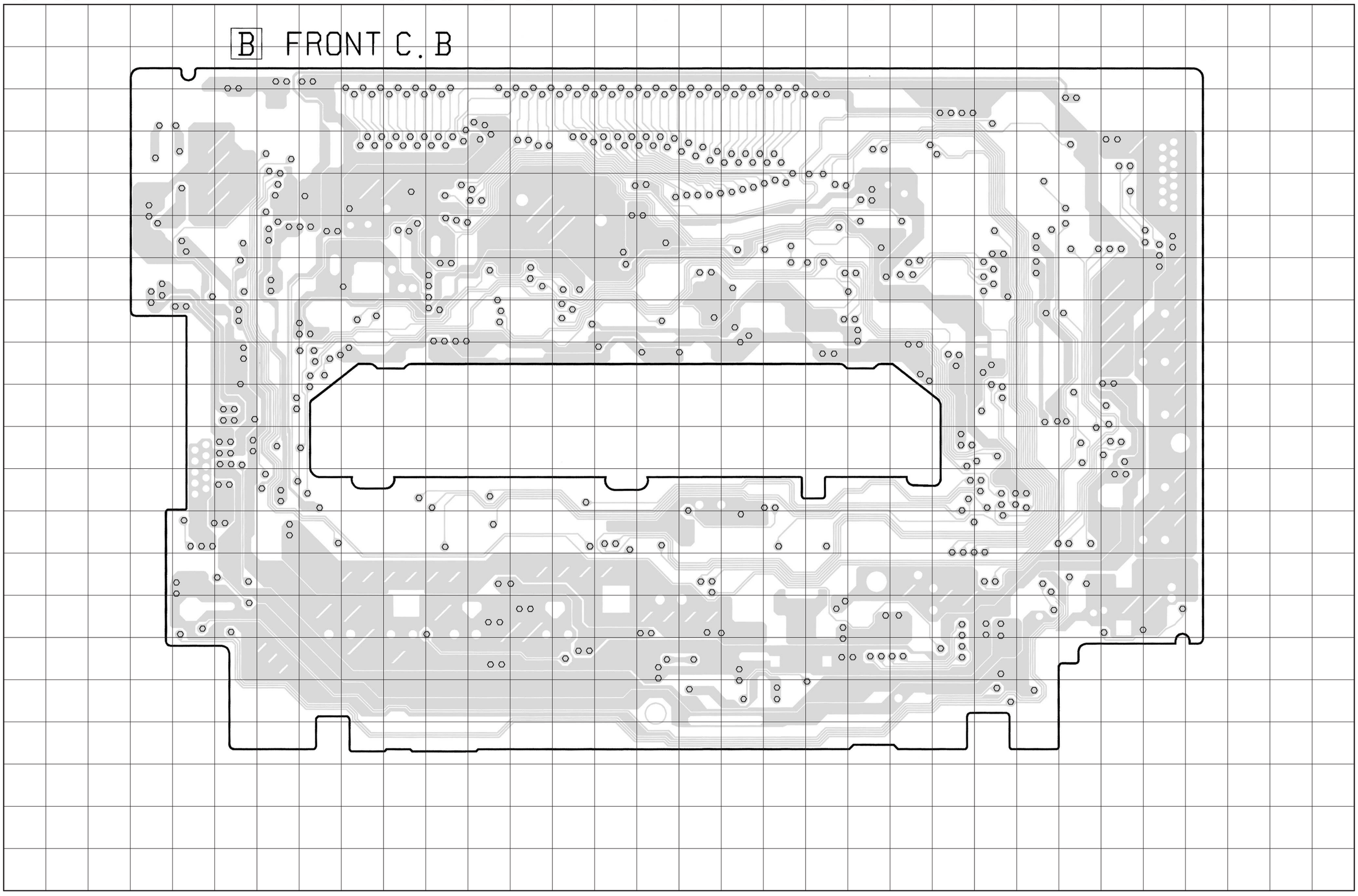
SCHEMATIC DIAGRAM - 2 (MAIN 2/2 : TUNER)



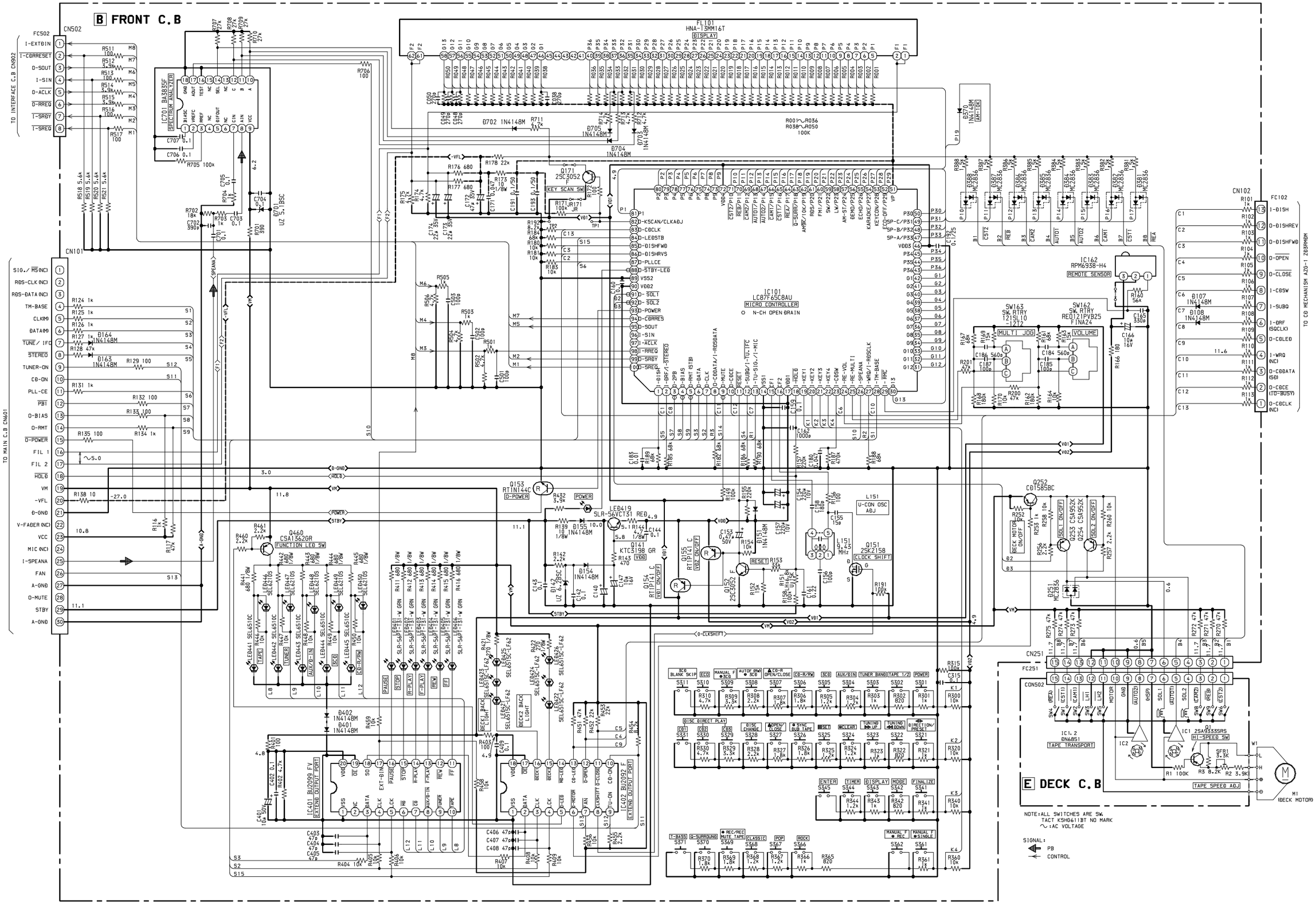
B FRONT C.B

IC162 REMOTE SENSOR
SW162 VOLUME
FL101 DISPLAY
S301, LEĐ419 POWER
FL101
IC162
SW162
IC101
IC701
IC402
IC401
S301
LEĐ419
TO CD MECHANISM ASSY FC102
TO INTERFACE C.B CN902 FC502
TO MAIN C.B CN601
S305, LEĐ444, 449 3CĐ
S304, LEĐ443, 448 AUX/Đ-IN
S303, LEĐ442, 447 TUNER BANĐ
S302, LEĐ441, 446 TAPE DECK 1/2
S306, LEĐ445, 450 CĐ-R/RN
S307 CĐ-R OPEN/CLOSE
S368 CLASSIC
S367 POP
S370 Q-SURROUND
S345 ENTER
S325, LEĐ401 SET
S324, LEĐ402 CLEAR
S321, LEĐ403, 404 DIRECTION/PRESET
S310 ECO
S311 3CĐ BLANK SKIP
S308 AUTO F (RW) 3CĐ
S309 MANUAL F 3CĐ
S344 TIMER
S361 MANUAL F SINGLE
S362 MANUAL F REC
S343 DISPLAY
S342 MODE
SW163 MULTI JOG
S371 T-BASS
S366 ROCK
S341 FINALIZE
FC251 TO DECK C.B CON502
S323, LEĐ406 UP
S322, LEĐ405 DOWN
TUNING
S369 REC/REC MUTE TAPE
S326 SYNC DUB TAPE
LEĐ421, 423, 425 DECK 1 BACK LIGHT
LEĐ422, 424, 426 ĐECK2 BACK LIGHT
S327 OPEN/CLOSE
S328 DISC CHANGE
S329 3
S330 2
S331 1
ĐISC DIRECT PLAY 1-3

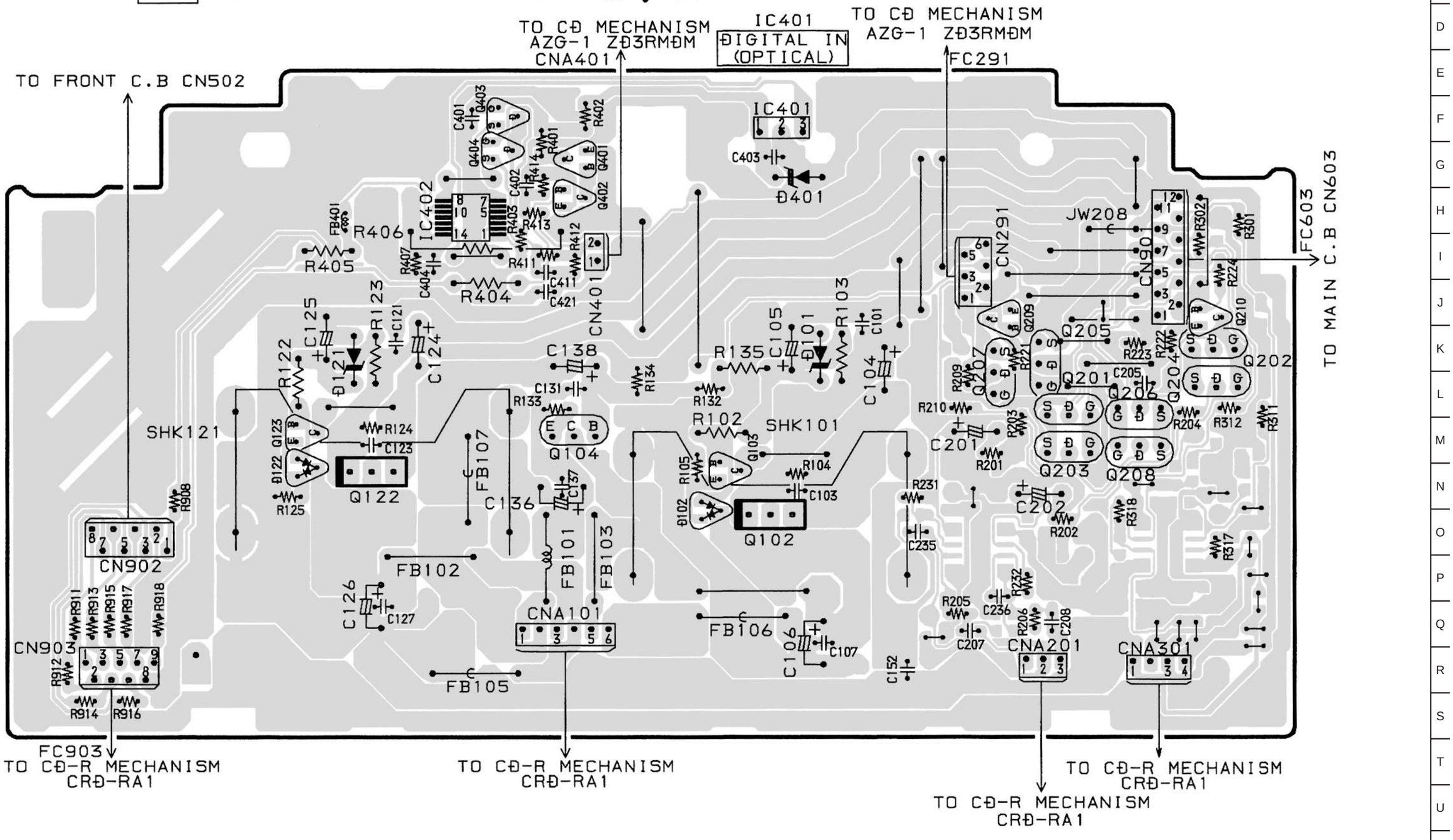
B FRONT C.B



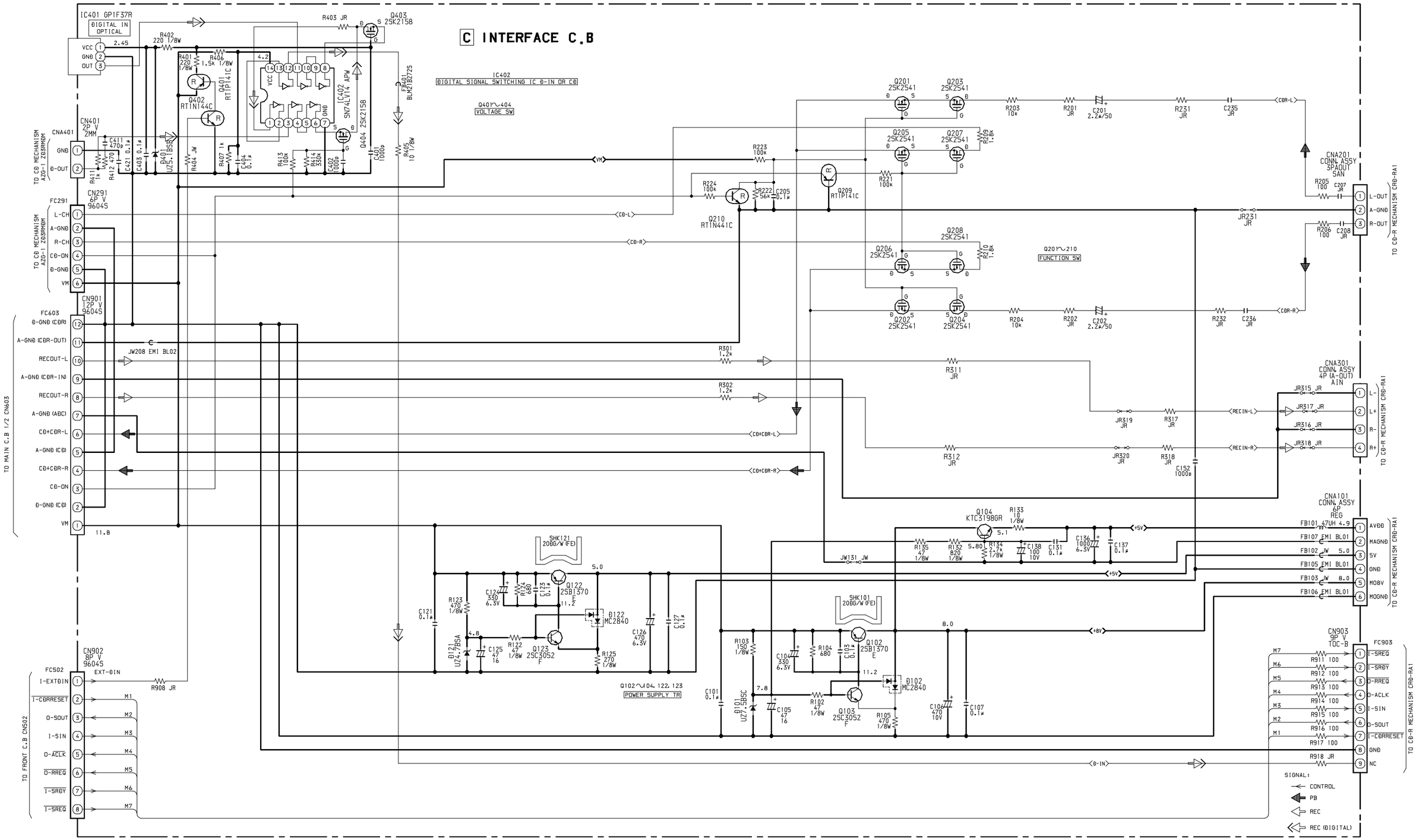
SCHEMATIC DIAGRAM - 3 (FRONT / DECK)

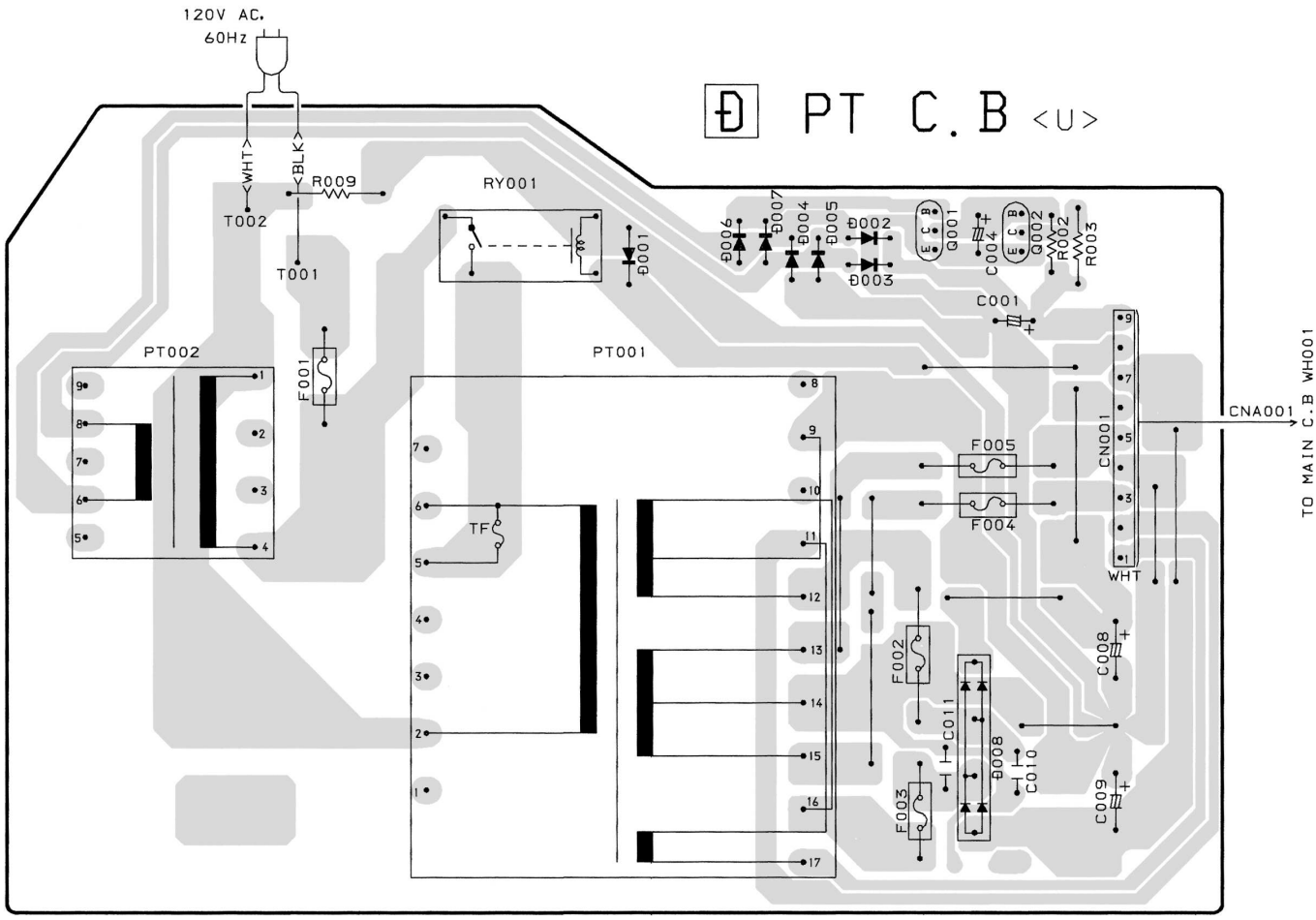


C INTERFACE C.B

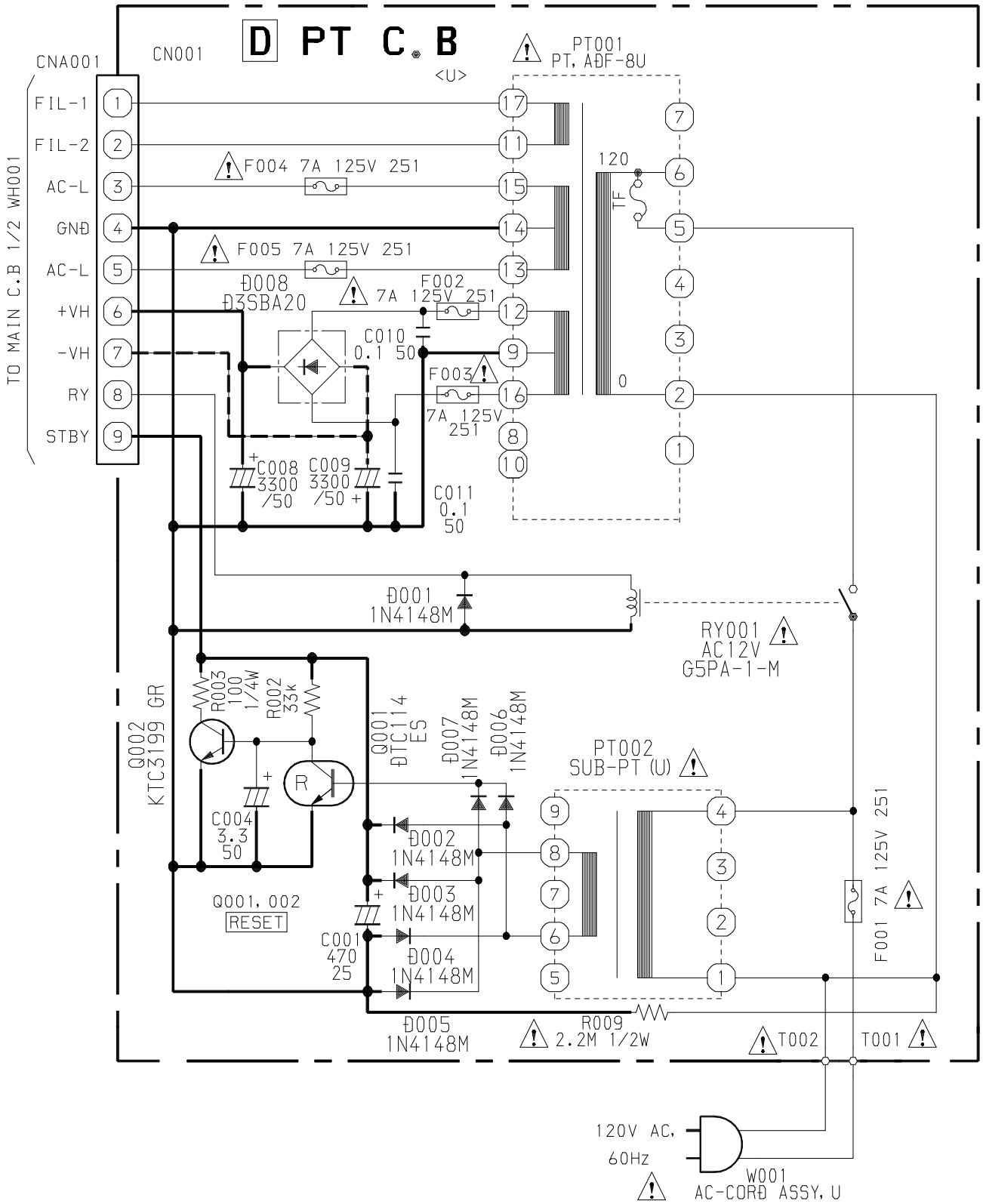


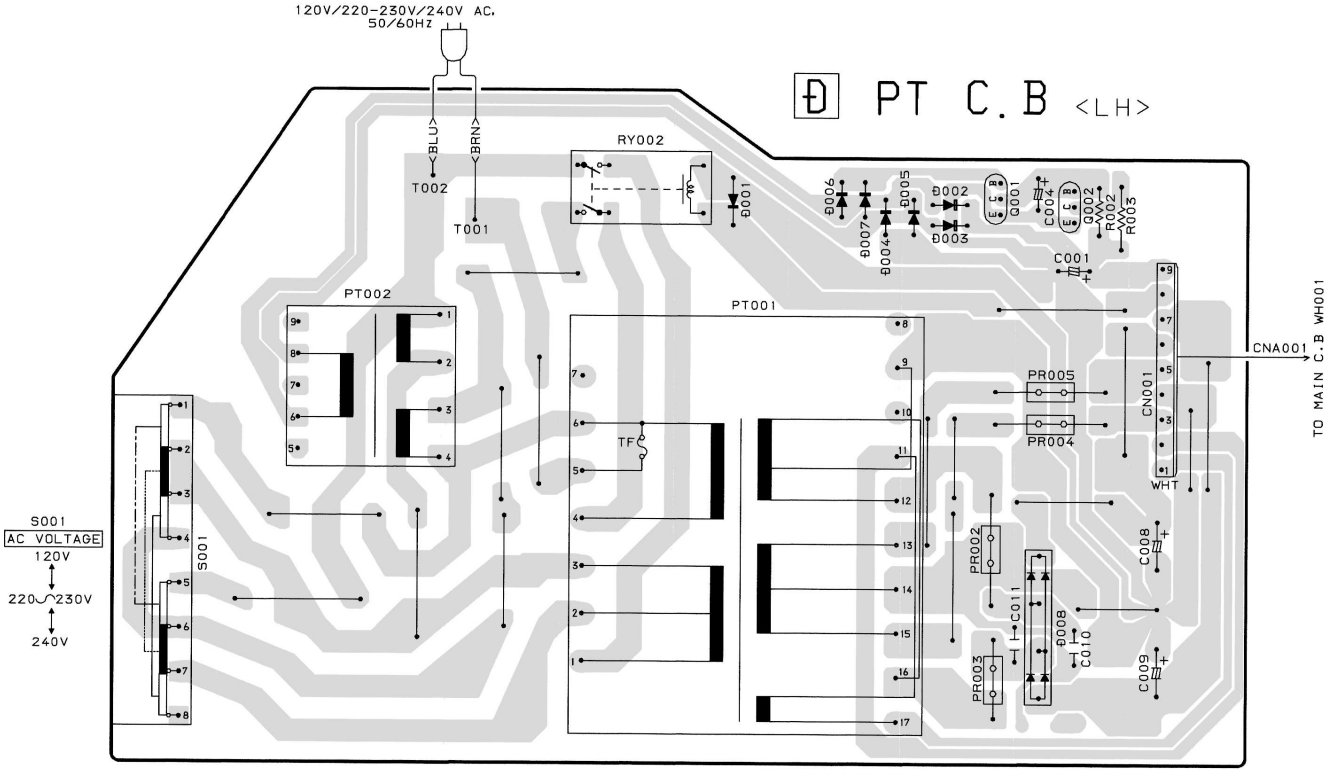
SCHEMATIC DIAGRAM - 4 (INTERFACE)



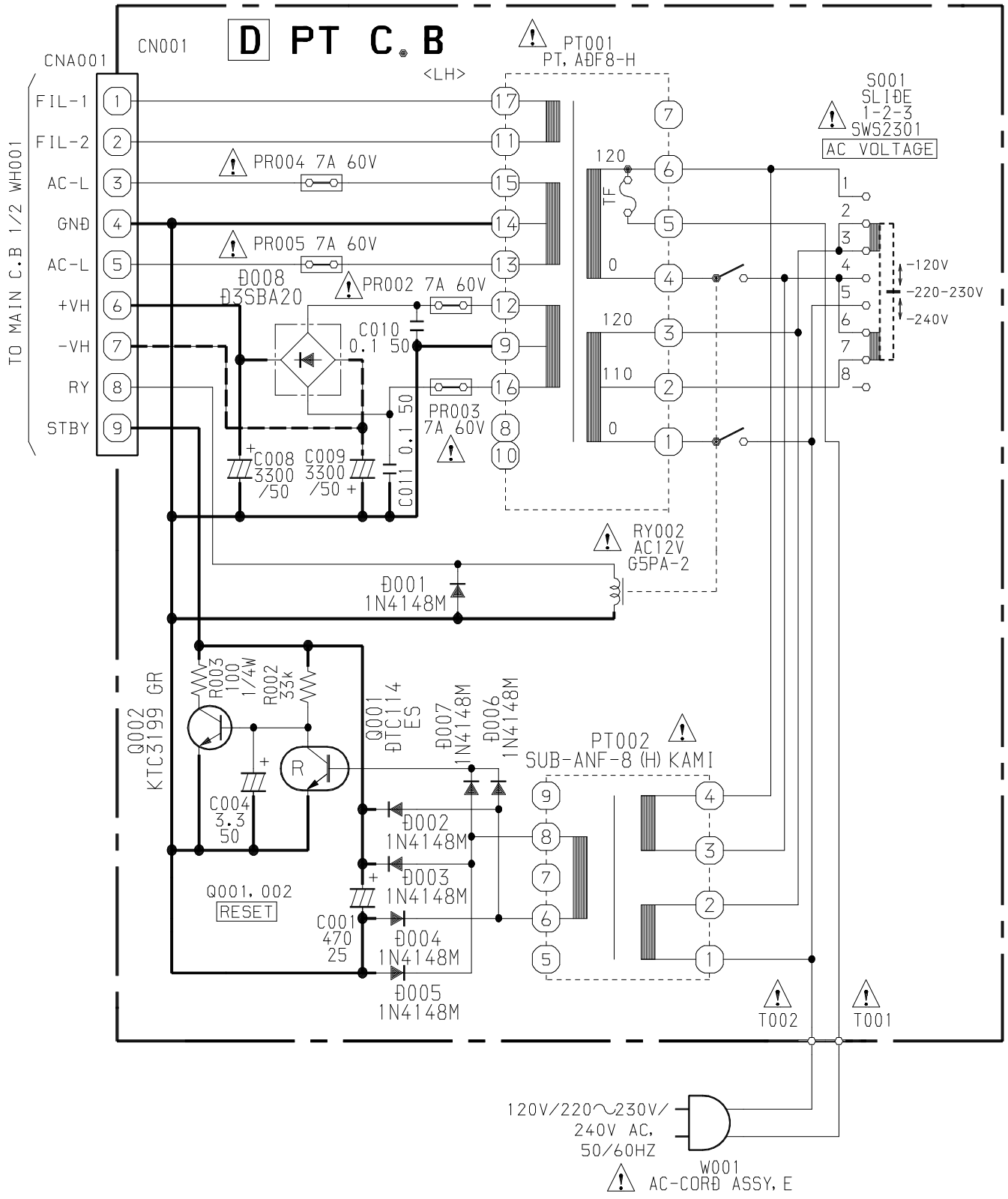

120V AC.
60Hz
WHT
BLK
R009
T002
T001
RY001
D001
D006
D007
D004
D005
D002
D003
Q001
Q002
C004
R002
R003
C001
PT002
PT001
F001
TF
F005
F004
CN001
CNA001
WHT
F002
C011
D008
C010
C008
C009
F003
TO MAIN C.B WH001

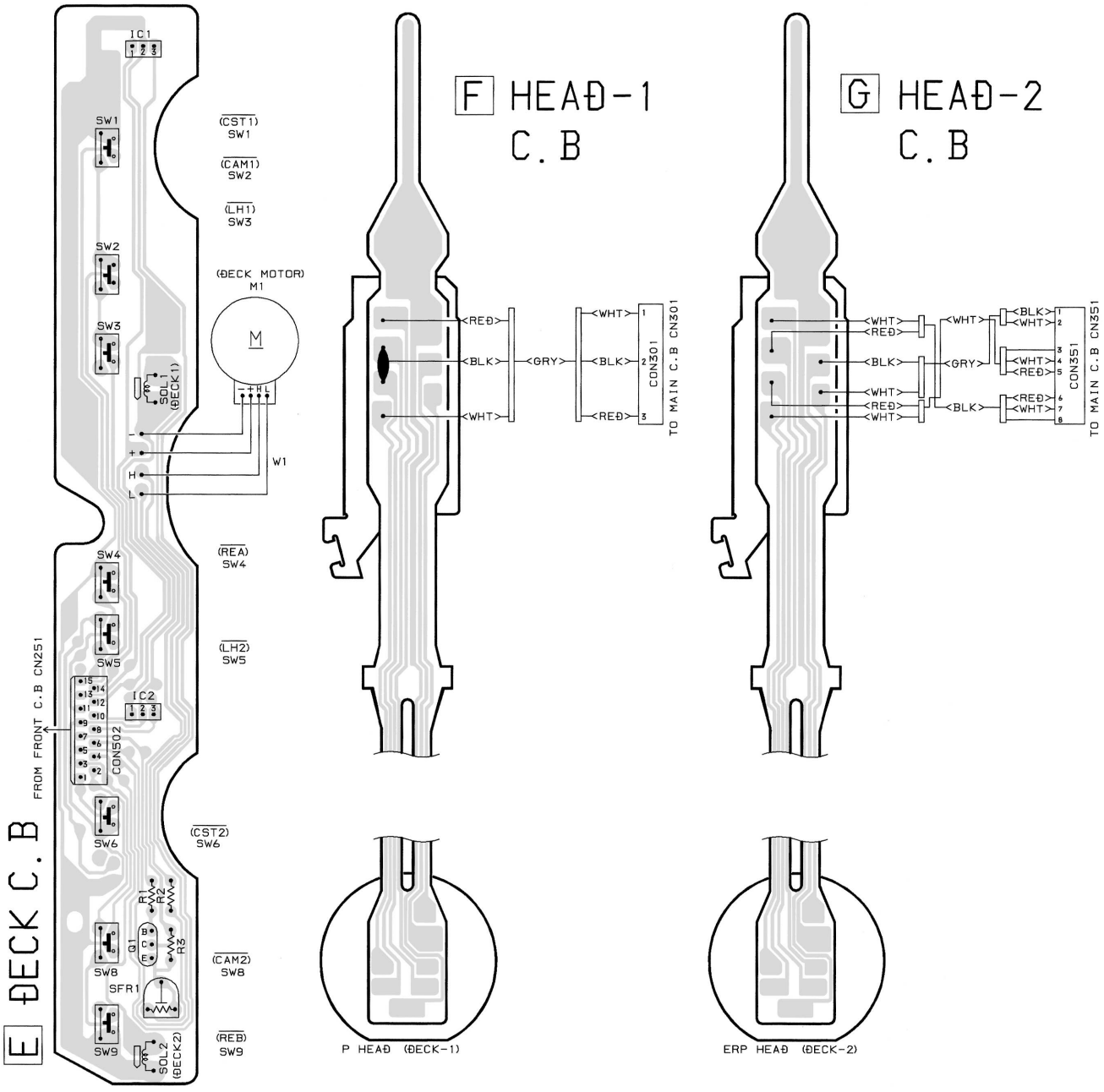
SCHEMATIC DIAGRAM - 5 (U : PT)




120V/220-230V/240V AC, 50/60Hz
PT C.B <LH>
BLU
BRN
T002
T001
RY002
D001
D006
D007
D004
D005
D002
D003
Q001
C004
Q002
VR2
R003
C001
PT002
PT001
CNA001
TO MAIN C.B WH001
CN001
WHT
PR005
PR004
TF
PR002
C011
D008
C010
C008
PR003
C009
S001
AC VOLTAGE
120V
220~230V
240V

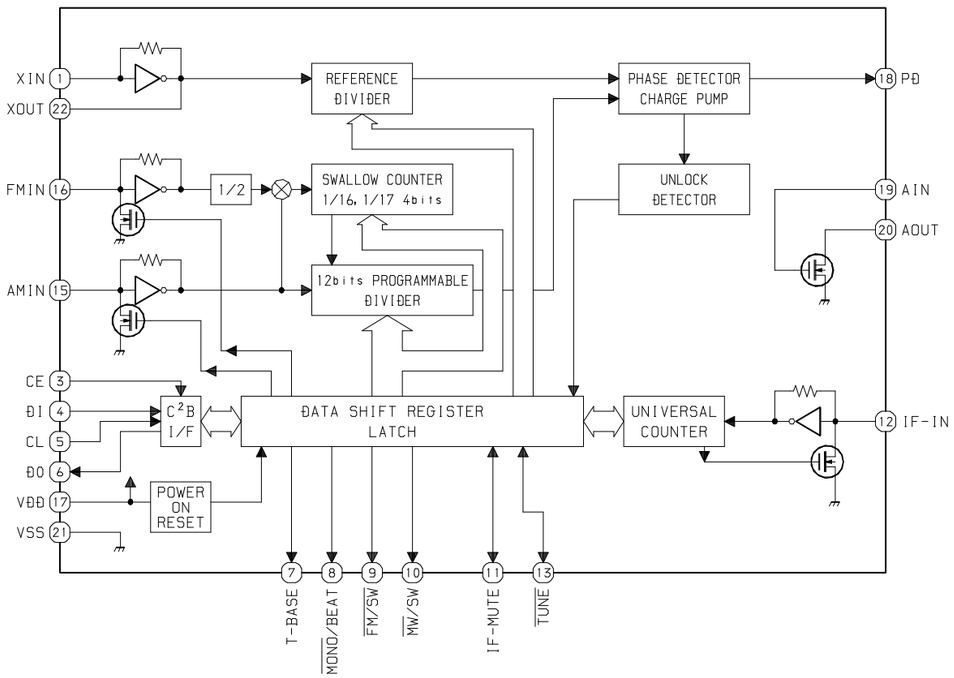
SCHEMATIC DIAGRAM - 6 (LH : PT)



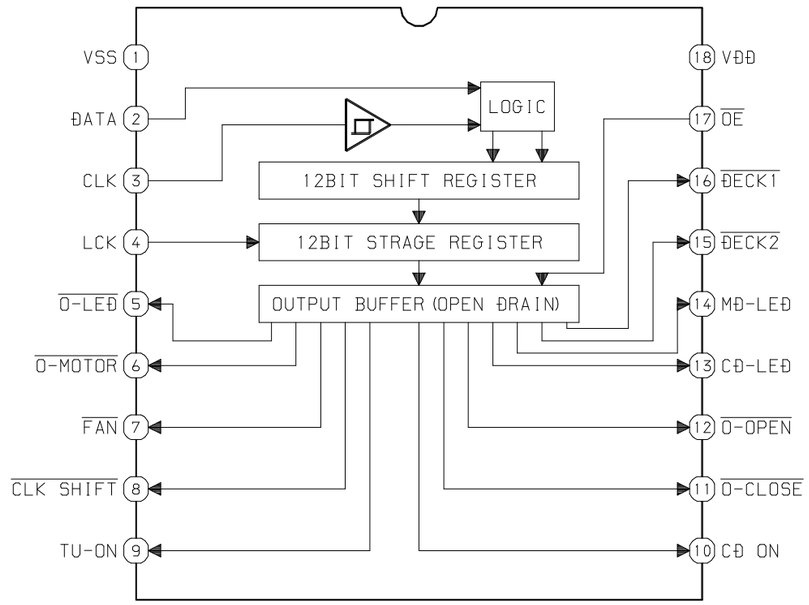

E DECK C.B
FROM FRONT C.B CN251
CON502
IC1
IC2
SW1
SW2
SW3
SW4
SW5
SW6
SW8
SW9
(CST1) SW1
(CAM1) SW2
(LH1) SW3
(DECK MOTOR) M1
SOL1 (DECK1)
W1
(REA) SW4
(LH2) SW5
(CST2) SW6
(CAM2) SW8
(REB) SW9
SOL2 (DECK2)
R1
R2
R3
Q1
SFR1
F HEAD-1 C.B
RED
BLK
WHT
GRY
CON301
TO MAIN C.B CN301
P HEAD (DECK-1)
G HEAD-2 C.B
CON351
TO MAIN C.B CN351
ERP HEAD (DECK-2)

IC BLOCK DIAGRAM

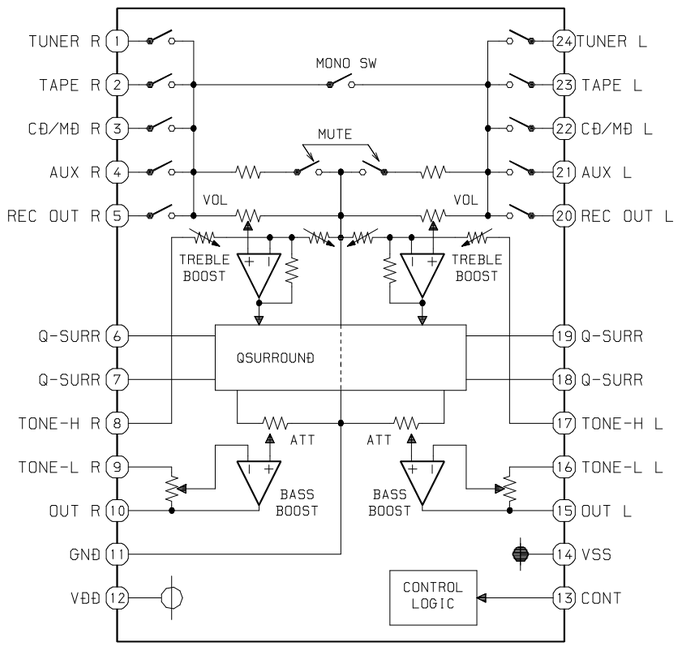
IC, LC72131D



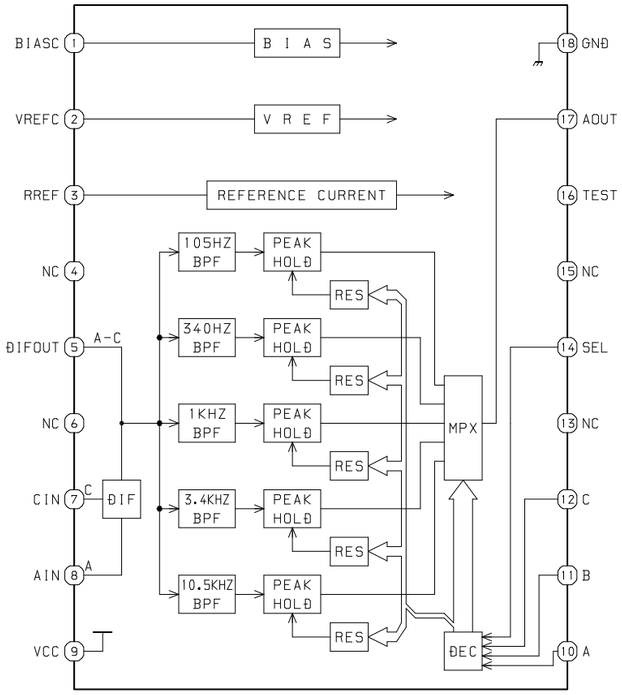
IC, BU2092F



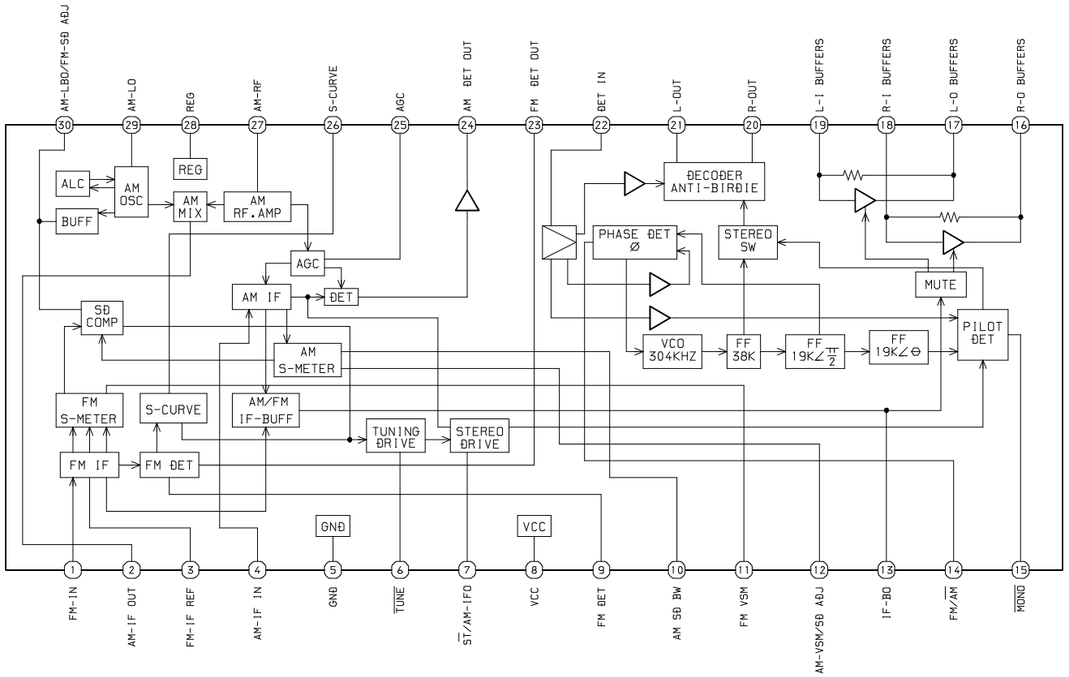
IC, M61500FP



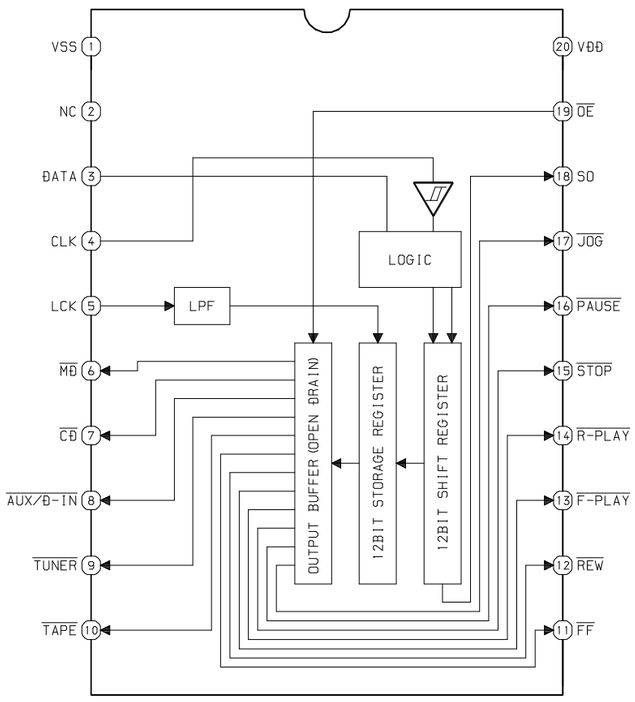
IC, BA3835F



IC, LA1837NL



IC, BU2099FV



IC DESCRIPTION

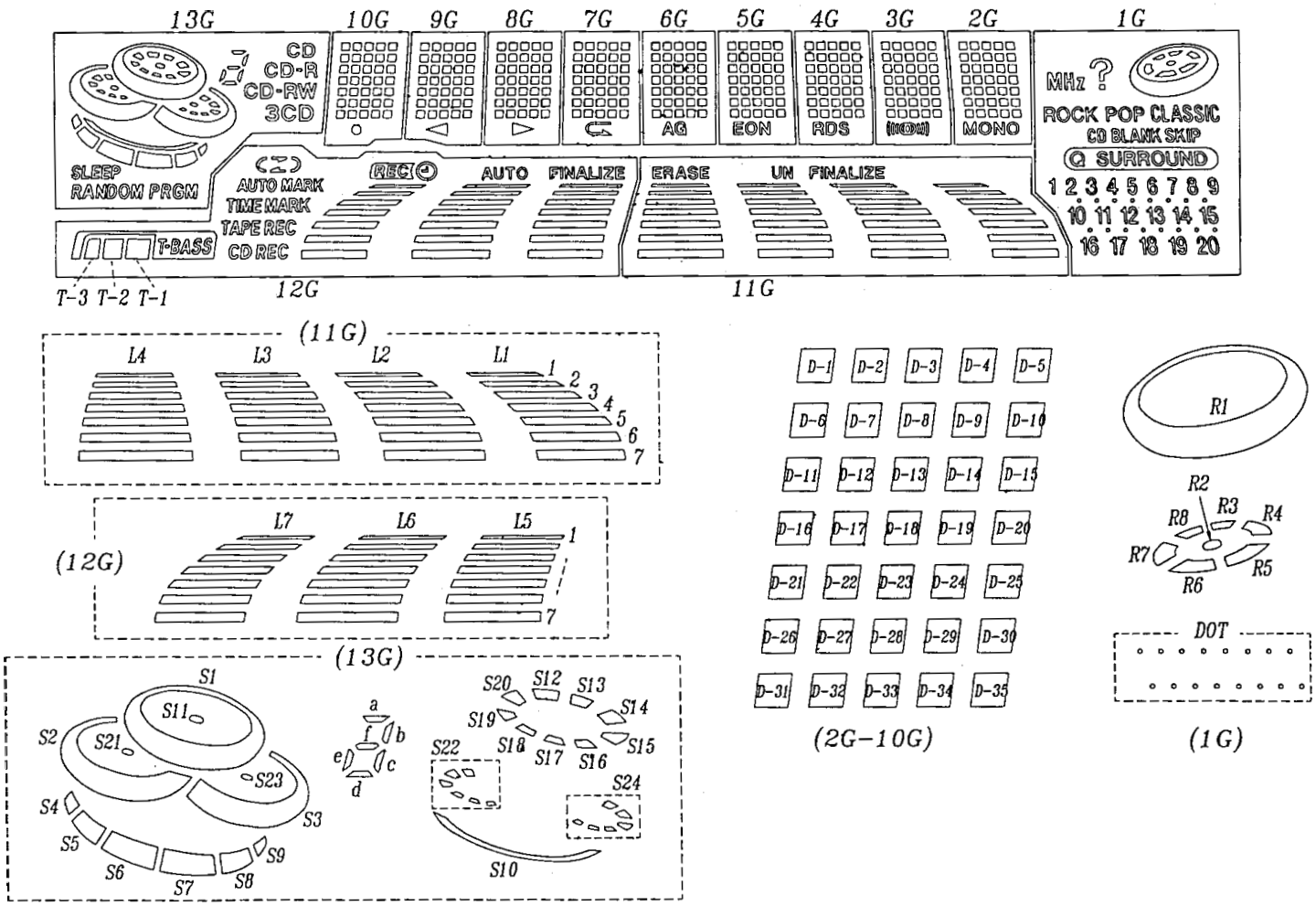
IC, LC87F65C8AU

Pin No.	Pin Name	I/O	Description
1	I-DISH	I	CD turnable photo sensor input.
2	I-DRF/$\overline{\text{I-STEREO}}$	I	CD DRF input/Stereo detect input.
3	O-2PB	O	Selection of Deck $\overline{1}$/2.
4	O-BIAS	O	Deck bias output.
5	O-RMT(STB)	O	REC mute output/(STB output:HIGH-PWB used).
6	O-DATA	O	DATA output for MAIN C.B.
7	O-CLK	O	CLOCK output for MAIN C.B.
8	O-CD DATA/ I-RDS DATA	O/I	CD data output/RDS data input (not used).
9	O-MUTE	O	System mute ON/OFF output.
10	O-CDCE	O	CD CE output.
11	$\overline{\text{RESET}}$	I	Reset input for MICON.
12	I-SUBQ/$\overline{\text{I-TU.IFC}}$	I	CD SUBQ input/TUNER IF count input.
13	I-TU-SIG/I-MIC	I	Tuner signal input/Microphone input for VF.
14	VSS1	–	GND.
15	CF1	I	Microcomputer clock input.
16	CF2	O	Microcomputer clock output.
17	VDD1	–	Power supply.
18	$\overline{\text{I-HOLD}}$	I	Hold input.
19~22	I-KEY-1~4	I	Key 1~4 AD input.
23	I-CDSW	I	CD mechanical switch input.
24	I-RE-VOL	I	Multi-jog (VOLUME) encoder input.
25	I-RE-MULTI	I	Multi-jog encoder input.
26	I-SPEANA	I	Spectrum analyzer level AD input.
27	I-WRQ/I-RDS-CLK	I/O	CD WRQ input/RDS-CLK input.
28	I-TM-BASE	I	Standard time input (8Hz).
29	I-$\overline{\text{RMC}}$	I	System remote controller input.
30~42	G13~G1	O	FL grid output (G13~G1).
43~45	P36~P34	O	FL segment output (P36~P34).
46	VDD3	–	VDD (for FL).
47	SP-A/P33	O	Spectrum analyzer band change output (A)/FL segment output (P33).
48	SP-B/P32	O	Spectrum analyzer band change output (B)/FL segment output (P32).
49	SP-C/P31	O	Spectrum analyzer band change output (C)/FL segment output (P31).
50	P30	O	FL segment output (P30).
51	VP	–	-VFL.
52	ECO-OFF/P29	I/O	ECO MODE off diode input (not used)/FL segment output (P29).
53	KEYCON/P28	I/O	KEY CONTROL diode input (not used)/FL segment output (P28).
54	KARAOKE/P27	I/O	KARAOKE diode input (not used)/FL segment output (P27).
55	ECHO/P26	I/O	ECHO diode input (not used)/FL segment output (P26).
56	DEMO/P25	I/O	DEMO diode input (not used)/FL segment output (P25).
57	AM-ST/P24	I/O	AM-STEREO diode input (not used)/FL segment output (P24).

Pin No.	Pin Name	I/O	Description
58	LW/P23	I/O	LW diode input (not used)/FL segment output (P23).
59	SW/P22	I/O	SW diode input (not used)/FL segment output (P22).
60	FM1/P21	I/O	FM1 (OIRT) diode input (not used)/FL segment output (P21).
61	RDS/P20	I/O	RDS diode input (not used)/FL segment output (P20).
62	AM-9K/10K/P19	I/O	AM 10K diode input/FL segment output (P19).
63	Q-SUPR/P18	I/O	Q-SUPR diode input (not used)/FL segment output (P18).
64	REA/P17	I/O	DECK side A record permission SW input/FL segment output (P17).
65	CST1/P16	I/O	DECK 1 cassette detect SW input/FL segment output (P16).
66	CAM1/P15	I/O	DECK 1 CAM SW input/FL segment output (P15).
67	AUTO2/P14	I/O	DECK 2 auto stop input/FL segment output (P14).
68	AUTO1/P13	I/O	DECK 1 auto stop input/FL segment output (P13).
69	CAM2/P12	I/O	DECK 2 CAM SW input/FL segment output (P12).
70	REB/P11	I/O	DECK side B record permission SW input/FL segment output (P11).
71	CST2/P10	I/O	DECK 2 cassette detect SW input/FL segment output (P10).
72	VDD4	–	VDD (for FL).
73~81	P9~P1	O	FL segment output (P9~P1).
82	O-KSCAN/CLKADJ	O	Key scan timing output.
83	O-CD CLK	O	CD CLK ouput.
84	O-LED STB	O	Strobe output for LED driver.
85	O-DISH FWD	O	CD turnable forward revolution output.
86	O-DISH RVS	O	CD turnable reverse revolution output.
87	O-PLL CE	O	Chip enable output for PLL.
88	O-STBY-LED	O	STBY LED ON output (STBY LED ON during O-POWER OFF).
89	VSS2	–	GND.
90	VDD2	–	Power supply.
91	O-SOL1	O	DECK 1 plunger ON/OFF output.
92	O-SOL2	O	DECK 2 plunger ON/OFF output.
93	O-POWER	O	System power ON/OFF output.
94	O-CDRES	O	CD-R reset output (Active low).
95	I-SOUT	I	CD-R SOUT input.
96	O-SIN	O	CD-R SIN output. (Not used)
97	I-ACLK	I	CD-R ACLK input. (Not used)
98	I-RREQ	I	CD-R ARDY input.
99	O-SRDY	O	CD-R SREQ output.
100	O-SREQ	O	CD-R MREQ output.

FL (HNA-13MM16T) GRID ASSIGNMENT AND ANODE CONNECTION

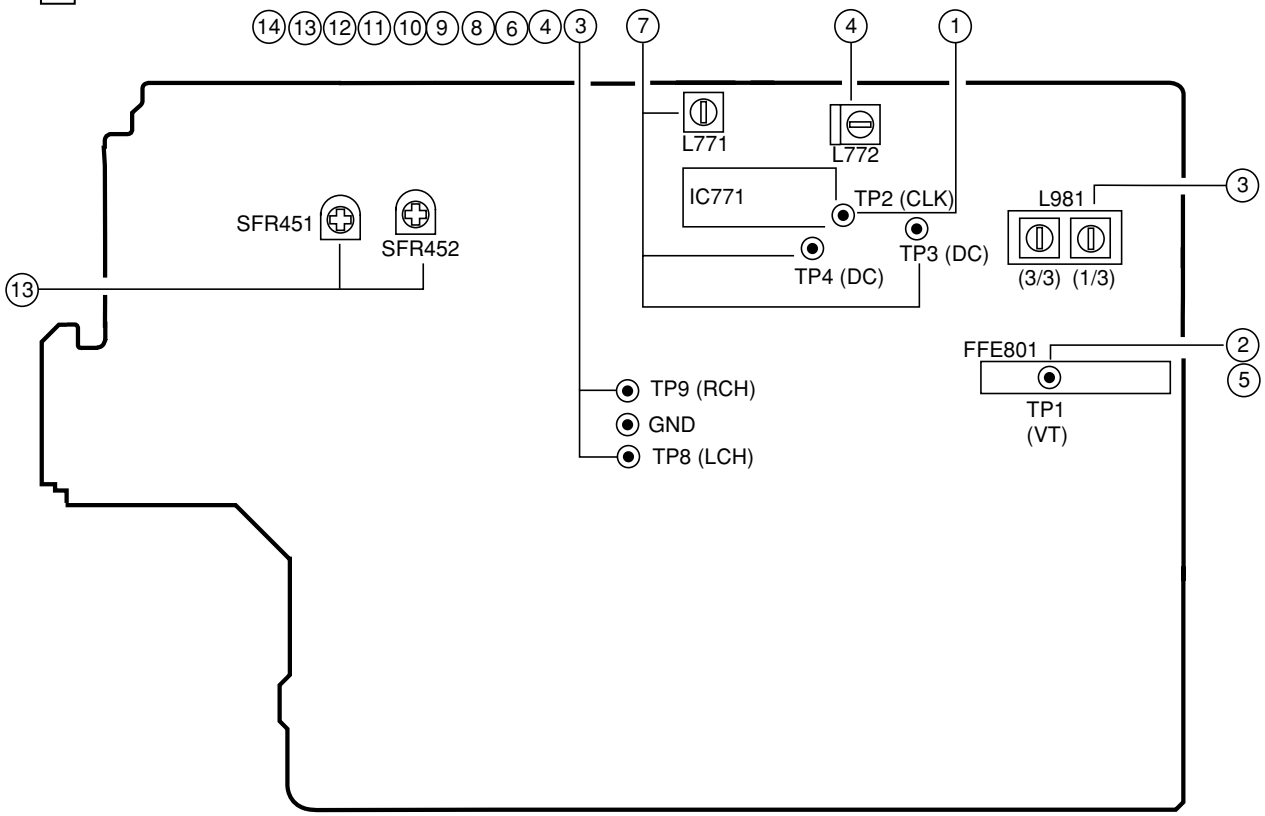
GRID ASSIGNMENT



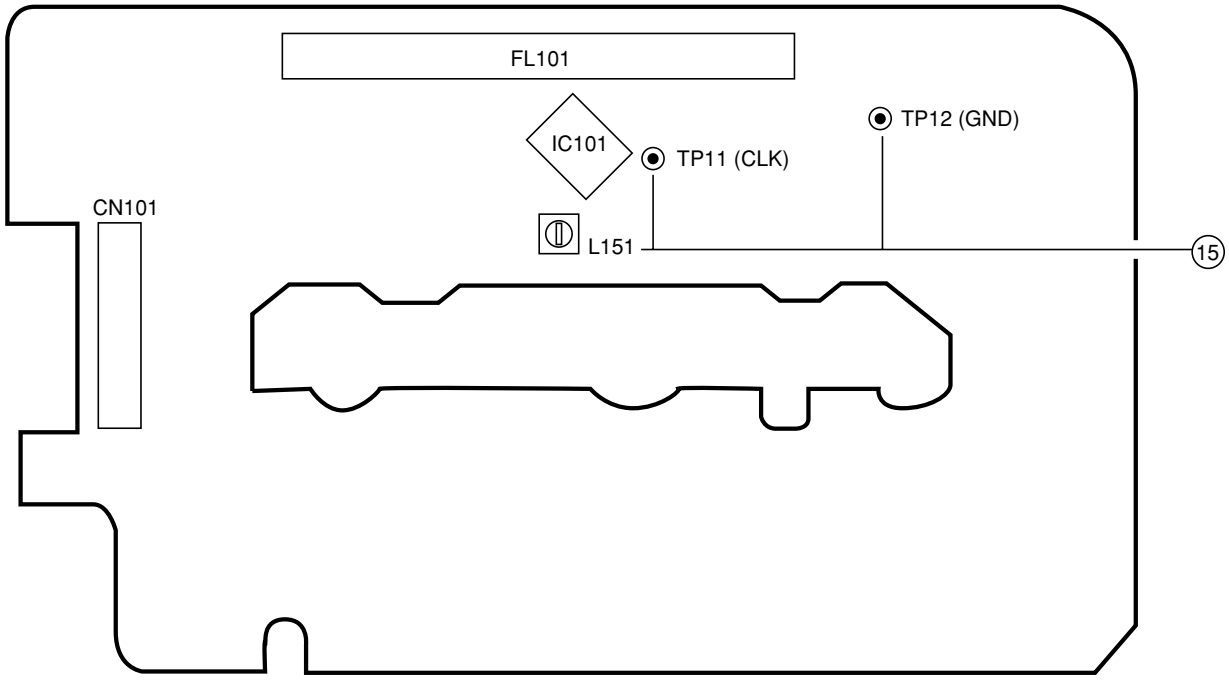
ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G
P1	MHz	D-1	D-1	D-1	D-1	D-1	D-1	D-1	D-1	D-1	L1-1	FINALIZE	CD
P2	?	D-2	D-2	D-2	D-2	D-2	D-2	D-2	D-2	D-2	L1-2	L5-1	CD-R
P3	ROCK	D-3	D-3	D-3	D-3	D-3	D-3	D-3	D-3	D-3	L1-3	L5-2	CD-RW
P4	POP	D-4	D-4	D-4	D-4	D-4	D-4	D-4	D-4	D-4	L1-4	L5-3	3CD
P5	CLASSIC	D-5	D-5	D-5	D-5	D-5	D-5	D-5	D-5	D-5	L1-5	L5-4	a, f, d
P6	R1	D-6	D-6	D-6	D-6	D-6	D-6	D-6	D-6	D-6	L1-6	L5-5	b
P7	R2	D-7	D-7	D-7	D-7	D-7	D-7	D-7	D-7	D-7	L1-7	L5-6	c
P8	R3	D-8	D-8	D-8	D-8	D-8	D-8	D-8	D-8	D-8	FINALIZE	L5-7	e
P9	R4	D-9	D-9	D-9	D-9	D-9	D-9	D-9	D-9	D-9	L2-1	AUTO	S1
P10	R5	D-10	D-10	D-10	D-10	D-10	D-10	D-10	D-10	D-10	L2-2	L6-1	S12
P11	R6	D-11	D-11	D-11	D-11	D-11	D-11	D-11	D-11	D-11	L2-3	L6-2	S13
P12	R7	D-12	D-12	D-12	D-12	D-12	D-12	D-12	D-12	D-12	L2-4	L6-3	S20
P13	R8	D-13	D-13	D-13	D-13	D-13	D-13	D-13	D-13	D-13	L2-5	L6-4	S14
P14	CD BLANK SKIP	D-14	D-14	D-14	D-14	D-14	D-14	D-14	D-14	D-14	L2-6	L6-5	S11
P15	Q. SURROUND	D-15	D-15	D-15	D-15	D-15	D-15	D-15	D-15	D-15	L2-7	L6-6	S19
P16	DOT	D-16	D-16	D-16	D-16	D-16	D-16	D-16	D-16	D-16	UN	L6-7	S15
P17	1	D-17	D-17	D-17	D-17	D-17	D-17	D-17	D-17	D-17	L3-1	◔	S18
P18	2	D-18	D-18	D-18	D-18	D-18	D-18	D-18	D-18	D-18	L3-2	REC	S16
P19	3	D-19	D-19	D-19	D-19	D-19	D-19	D-19	D-19	D-19	L3-3	L7-1	S17
P20	4	D-20	D-20	D-20	D-20	D-20	D-20	D-20	D-20	D-20	L3-4	L7-2	S3
P21	5	D-21	D-21	D-21	D-21	D-21	D-21	D-21	D-21	D-21	L3-5	L7-3	S24
P22	6	D-22	D-22	D-22	D-22	D-22	D-22	D-22	D-22	D-22	L3-6	L7-4	S23
P23	7	D-23	D-23	D-23	D-23	D-23	D-23	D-23	D-23	D-23	L3-7	L7-5	S9
P24	8	D-24	D-24	D-24	D-24	D-24	D-24	D-24	D-24	D-24	ERASE	L7-6	S8
P25	9	D-25	D-25	D-25	D-25	D-25	D-25	D-25	D-25	D-25	L4-1	L7-7	S7
P26	10	D-26	D-26	D-26	D-26	D-26	D-26	D-26	D-26	D-26	L4-2	☽	S6
P27	11	D-27	D-27	D-27	D-27	D-27	D-27	D-27	D-27	D-27	L4-3	⧖	S5
P28	12	D-28	D-28	D-28	D-28	D-28	D-28	D-28	D-28	D-28	L4-4	☾	S4
P29	13	D-29	D-29	D-29	D-29	D-29	D-29	D-29	D-29	D-29	L4-5	AUTO MARK	S2
P30	14	D-30	D-30	D-30	D-30	D-30	D-30	D-30	D-30	D-30	L4-6	TIME MARK	S22
P31	15	D-31	D-31	D-31	D-31	D-31	D-31	D-31	D-31	D-31	L4-7	TAPE REC	S21
P32	16	D-32	D-32	D-32	D-32	D-32	D-32	D-32	D-32	D-32		CD REC	S10
P33	17	D-33	D-33	D-33	D-33	D-33	D-33	D-33	D-33	D-33		TRACK	SLEEP
P34	18	D-34	D-34	D-34	D-34	D-34	D-34	D-34	D-34	D-34		T-1	RANDOM
P35	19	D-35	D-35	D-35	D-35	D-35	D-35	D-35	D-35	D-35		T-2	PRGM
P36	20	MONO	(illegible)	RDS	EON	AG	⊂	▷	◁	○		T-3	

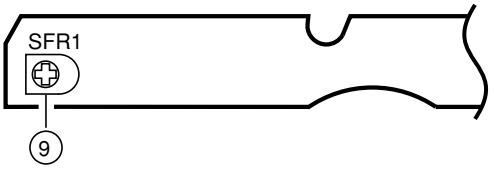
A MAIN C.B



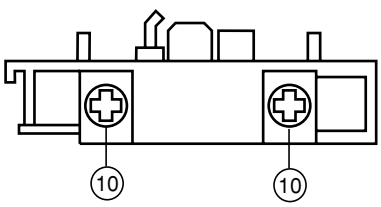
B FRONT C.B



E DECK C.B



DECK–1 P HEAD,
DECK–2 R/P/E HEAD



< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to AM 1710kHz and check that the test point is 2160kHz ± 45Hz.

2. AM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to AM 1710kHz and check that the test point is less than 8.5V. Then set to AM 530kHz and check that the test point is more than 0.6V.

3. AM Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : L981 (1/3)
   Method : Set to AM 1000kHz and adjust L981 (1/3) so that the test point becomes maximum.

4. AM IF Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L772 ..... 450kHz

5. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to FM 108.0MHz and check that the test point is less than 8.0V. Then set to FM 87.5MHz and check that the test point is more than 0.5V.

6. FM Tracking Check
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   Method : Set to FM 98.0MHz and check that the test point is less than 9dBµV.

7. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC balance)
   • Adjustment location : L771
   • Input level : 60dBµV
   Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 is 0V ± 0.04V. Then check the distortion is less than 1.3%.

8. FM Separation Check
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Input level : 60dBµV
   Method : Set to FM 98.0MHz and check that the test point is more than 25dB.

< DECK SECTION >

9. Tape Speed Adjustment (DECK 2)
   Settings : • Test tape : TTA–100
   • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : SFR1
   Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz ± 5Hz and ±45Hz (REV) with respect to forward speed.

10. Head Azimuth Adjustment (DECK 1, DECK 2)
    Settings : • Test tape : TTA–330
    • Test point : TP8 (Lch), TP9 (Rch)
    • Adjustment location : Head azimuth adjustment screw
    Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on REV PLAY mode.

11. PB Frequency Response Check (DECK 1, DECK 2)
    Settings : • Test tape : TTA–330
    • Test point :TP8 (Lch), TP9 (Rch)
    Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 5dB.

12. PB Sensitivity Check (DECK 1, DECK 2)
    Settings : • Test tape : TTA–200
    • Test point : TP8 (Lch), TP9 (Rch)
    Method : Play back the test tape and check that the output level of the test point is 100mV ± 3dB.

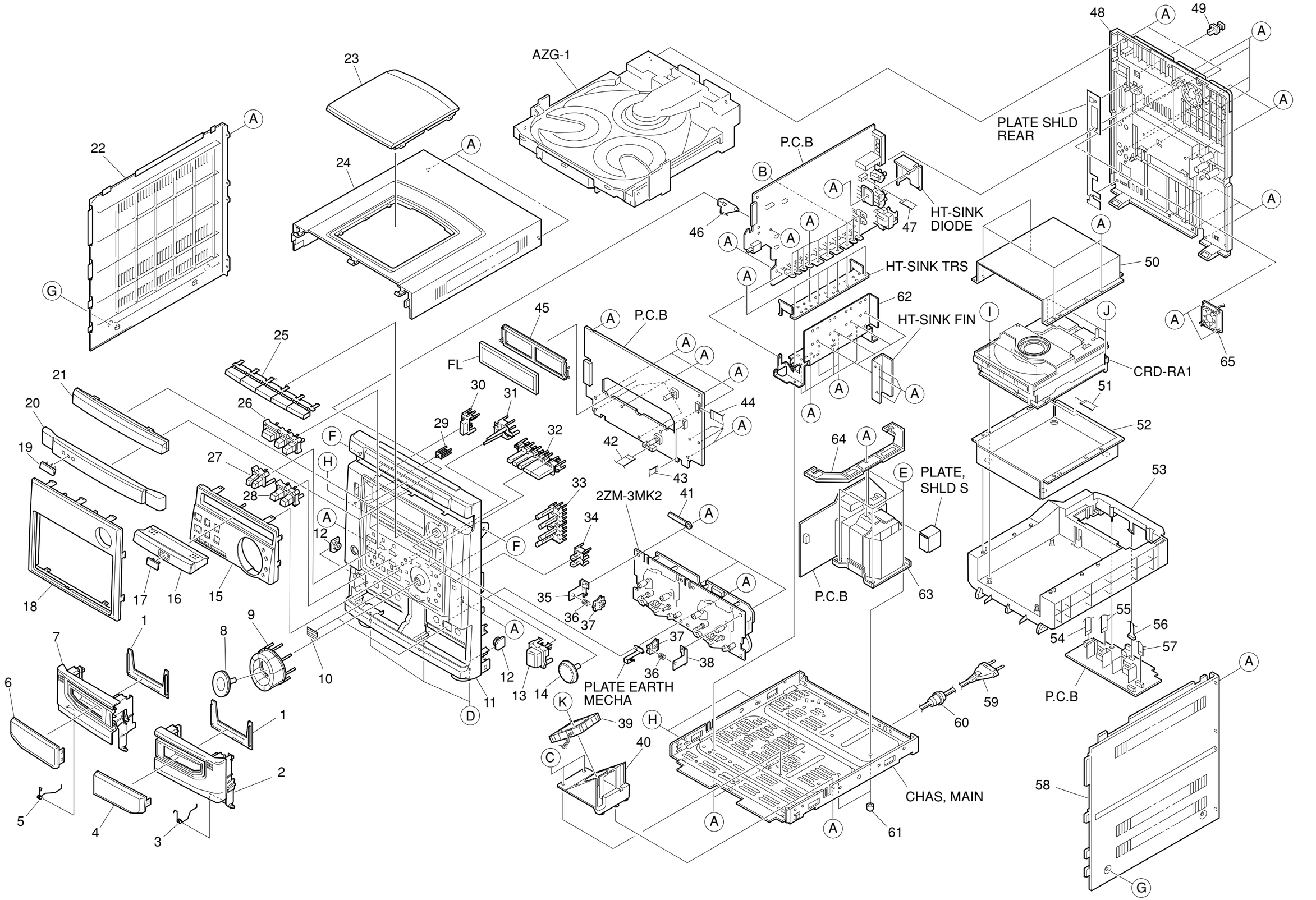
13. REC/PB Frequency Response Adjustment (DECK 2)
    Settings : • Test tape : TTA–602
    • Test point : TP8 (Lch), TP9 (Rch)
    • Input signal : 1kHz / 8kHz (LINE IN)
    • Adjustment location : SFR451 (Lch)
    SFR452 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes -20VU (8mV). Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

14. REC/PB Sensitivity Check (DECK 2)
    Settings : • Test tape : TTA–602
    • Test point : TP8 (Lch), TP9 (Rch)
    • Input signal : 1kHz (LINE IN)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0VU (80mV). Record and play back the 1kHz signals and check that the output is 0dB ± 3.0dB.

< FRONT SECTION >

15. µ-CON OSC Adjustment
    Settings : • Test point : TP11 (CLK), TP12 (GND)
    • Adjustment location : L151
    Method : Insert AC plug while pressing TUNER function key and DIRECTION key. Adjust L151 so that the frequency at the test point is 209.55Hz ± 0.05Hz.

MECHANICAL EXPLODED VIEW 1 / 1



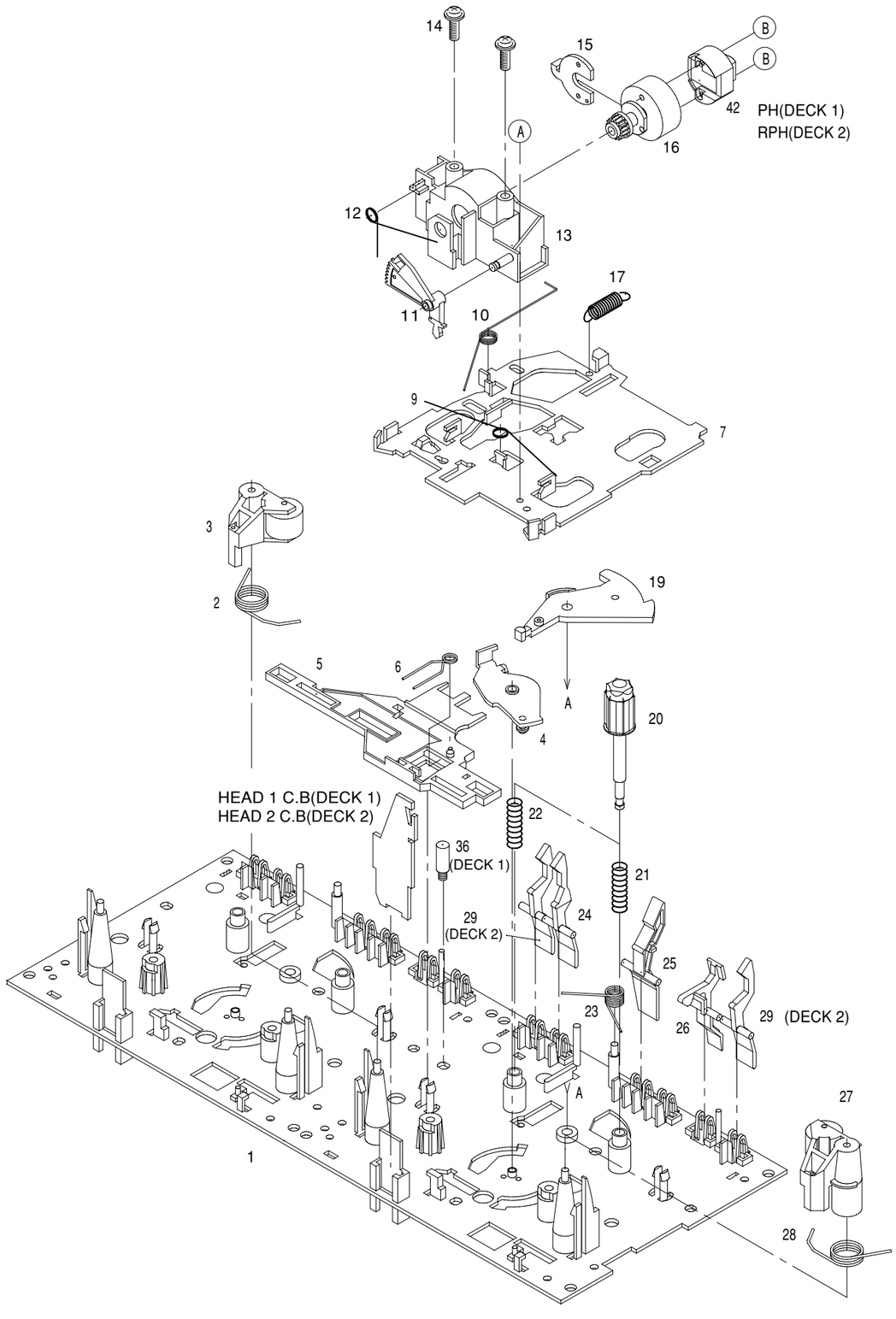
MECHANICAL PARTS LIST 1 / 1

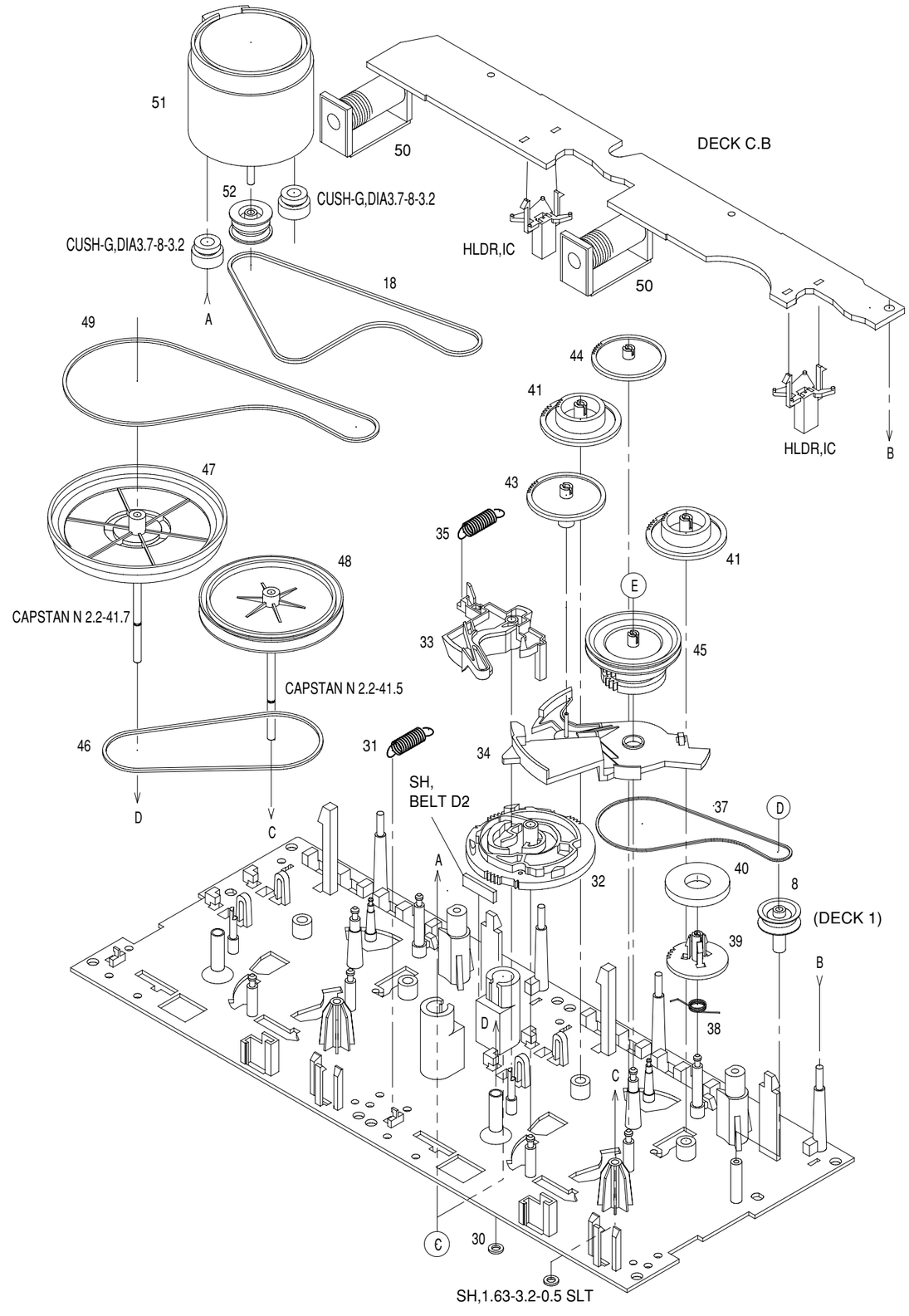
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NF6-061-010		REFLECTOR,CASS
2	8A-DB8-004-010		BOX,CASS 2
3	82-NF5-219-010		SPR-T,EJECT 2 (SIN)
4	8A-DB8-012-010		WINDOW,CASS 2
5	82-NF5-218-010		SPR-T,EJECT 1 (SIN)
6	8A-DB8-011-010		WINDOW,CASS 1
7	8A-DB8-003-010		BOX,CASS 1
8	8A-DB8-028-010		KNOB,RTRY ASSY JOG
9	8A-DB8-031-110		KEY,ASSY JOG
10	81-532-080-010		LABEL, CASS. COMPT
11	8A-DF8-001-010		CABI,FR
12	8Z-NF6-210-010		DMPR,150 N
13	8A-DF8-007-010		KEY,OPEN CD-R
14	8A-DB8-027-010		KNOB,RTRY VOL
15	8A-DF8-002-010		PANEL,AMP
16	8A-DF8-003-010		PANEL,TRAY CD-R
17	8Z-DF8-014-010		BAGE,CD-R 26
18	8A-DF8-023-010		WINDOW,DISPLAY EZ<LH>
18	8A-DF8-024-010		WINDOW,DISPLAY U<U>
19	87-CE3-023-010		BADGE,AIWA 30N SILV
20	8A-DB8-005-110		PANEL,TRAY
21	8A-DF8-021-010		WINDOW,CD
22	8A-NF8-007-010		PANEL,LEFT V-2
23	8A-NF8-006-010		WINDOW,TOP
24	8A-NF8-005-010		PANEL,TOP
25	8A-DF8-012-010		KEY,ASSY FUN
26	8A-DB8-017-010		KEY,ASSY OPE
27	8A-DF8-006-010		KEY,FINALIZE
28	8A-DF8-004-010		KEY,ASSY OPE 2
29	8A-DB8-036-010		REFLECTOR,ECO
30	8A-DB8-013-010		KEY,POWER
31	8A-DB8-023-010		KEY,T-BASS
32	8A-DB8-022-110		KEY,CD
33	8A-DB8-024-010		KEY,REC
34	8A-DB8-020-010		KEY,ECO
35	87-NF4-216-010		HLDR,LOCK 1
36	86-NF9-224-010		SPR-C,LOCK
37	82-NF5-229-010		PLATE,LOCK
38	87-NF4-217-110		HLDR,LOCK 2
39	87-A91-232-010		FAN,F614R-12MC-22-350MM
40	8A-DF8-207-010		HLDR,FAN
41	87-064-185-010		HLDR,WIRE
42	88-915-121-110		FF-CABLE, 15P 1.25
43	88-908-281-110		FF-CABLE, 8P 1.25 280MM
44	88-913-271-110		FF-CABLE, 13P 1.25
45	8A-DB8-204-010		GUIDE,FL
46	88-NF5-208-010		HLDR,PWB-M N
47	88-912-121-110		FF-CABLE, 12P 1.25 120MM
48	8A-DF8-009-010		CABI,REAR LHSM<LH>
48	8A-DF8-008-010		CABI,REAR USM<U>
49	84-ZG1-245-210		CAP,OPTICAL
50	8A-DF8-206-010		CASE,CD-R TOP
51	8A-DF8-631-010		FF-CABLE,9P 1.0 250MM
52	8A-DF8-205-010		CASE,CD-R BOTTOM
53	8A-DF8-201-010		HLDR,CD-R
54	88-912-151-110		FF-CABLE, 12P 1.25
55	88-906-171-110		FF-CABLE,6P 1.25
56	87-NB7-615-010		CONN ASSY,2P SHIELDPH/PH
57	88-908-341-110		FF-CABLE, 8P 1.25 340MM
58	8A-NF8-008-010		PANEL,RIGHT V-2
⚠ 59	87-A80-092-010		AC CORD ASSY,E BLK SUN FAI<LH>
⚠ 59	87-A80-110-010		AC CORD ASSY,U SPT-2W<U>
60	87-085-185-010		BUSHING, AC CORD (E)<LH>
60	87-085-189-010		BUSHING, CORD (U)<U>
61	8Z-NB8-240-010		COVER, PL
62	8A-DF8-203-010		HT-SINK,
⚠ 63	8A-DF8-606-010		PT,ADF8-H<LH>
⚠ 63	8A-DF8-607-010		PT,ADF8-U<U>
64	8A-DF8-202-010		HLDR,PWB PT
65	87-A91-820-010		FAN, 3110GL-B4W-B34-H05 -470MM
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
C	87-067-579-010		TAPPING SCREW, BVT2+3-8
D	87-067-688-010		BVTT+3-6
E	87-078-191-010		S-SCREW,IT+4-10
F	87-721-097-410		QT2+3-12 GLD
G	87-067-641-010		UTT2+3-8(W/O SLOT)BL
H	87-723-096-410		QT2+3-10W/O SLOT BL
I	87-B10-069-010		BVT2+3-35 W/O
J	87-B10-299-010		BVT2+3-30 W/O SLOT
K	87-067-873-010		BVT2+3-25 W/O SLOT
	M8-AZK-F90-070		CRD-RA1

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink

TAPE MECHANISM EXPLODED VIEW 1 / 1





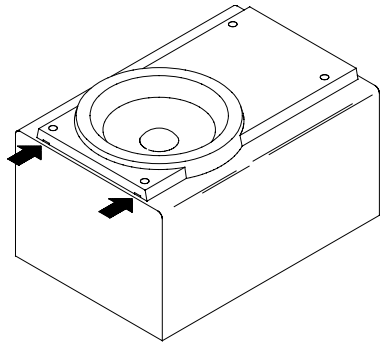
TAPE MECHANISM PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-610		CHAS ASSY,M2
2	82-ZM1-258-210		SPR-T,PINCH L
3	82-ZM1-341-210		LVR ASSY,PINCH L2
4	82-ZM1-333-210		PLATE,LINK2
5	82-ZM1-266-310		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-910		CHAS,HEAD
8	82-ZM3-335-310		PULLEY,COUPLER M3
9	82-ZM1-269-210		SPR-T,BRG
10	82-ZM1-219-110		SPR-T,LINK
11	82-ZM1-210-110		GEAR,H T
12	82-ZM1-213-010		SPR-T,HEAD
13	82-ZM1-207-910		GUIDE,TAPE
14	86-ZM4-206-010		S-SCREW,AZIMUTH L
15	82-ZM1-314-110		PLATE,HEAD
16	82-ZM1-208-310		HLDR,HEAD
17	82-ZM1-218-010		SPR-E,HB
18	82-ZM3-342-010		BELT,SBU MOT 3
19	82-ZM1-222-210		LVR,PLAY
20	82-ZM1-217-410		REEL TABLE
21	82-ZM1-244-510		SPR-C,BT
22	82-ZM1-285-410		SPR-C,BT L
23	82-ZM1-257-010		SPR-T,CAS
24	82-ZM1-241-310		LVR,MC
25	82-ZM1-242-010		LVR,CAS
26	82-ZM1-243-010		LVR,STOP
27	82-ZM1-344-010		LVR ASSY,PINCH R2
28	82-ZM1-259-210		SPR-T,PINCH R
29	82-ZM1-240-110		LVR,REC(*)
30	80-ZM6-243-010		SH 1.75-3.6-0.5 SLT
31	82-ZM1-255-310		SPR-E,LVR DIR
32	82-ZM3-305-210		GEAR,CAM M2
33	82-ZM1-227-310		LVR,TRIG
34	82-ZM3-306-110		LVR,FR M2
35	82-ZM1-265-310		SPR-E,TRIG
36	82-ZM3-339-110		SHAFT,COUPLER N3
37	86-ZM1-206-010		BELT,MAIN L
38	82-ZM1-322-010		SPR-T,FR 60
39	82-ZM1-220-210		GEAR,IDLER
40	82-ZM3-616-010		RING MAGNET 4
41	82-ZM1-216-410		GEAR,REEL
42	87-A90-820-010		HEAD,PH HADKH25 FPC
42	87-A90-821-010		HEAD,RPH HADKH56 FPC
43	82-ZM1-225-210		GEAR,FR
44	82-ZM1-226-010		GEAR,REW
45	82-ZM3-333-310		SLIP DISK ASSY 2
46	82-ZM1-338-110		BELT,FR 4
47	82-ZM1-237-610		FLY-WHL ASSY R
47	82-ZM1-234-310		FLY-WHL ASSY L
48	09-001-420-010		FLY-WHL ASSY R3W
49	82-ZM3-329-410		BELT,SBU R2
50	82-ZM1-618-410		SOL ASSY,27
51	87-045-347-010		MOT,SHU2L 70
52	82-ZM3-221-210		PULLEY,MOT 2M
A	85-ZM3-202-010		S-SCREW,TG
B	80-ZM6-207-010		V+1.6-7
C	82-ZM3-318-110		S-SCREW W,MOTOR M2
D	87-B10-043-010		W-P,0.99-4-0.25 SLT
E	82-ZM3-334-010		PW 2.16-6-0.4

SPEAKER DISASSEMBLY INSTRUCTIONS

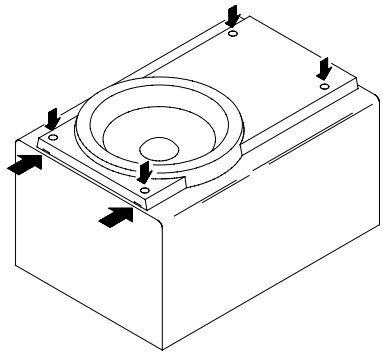
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



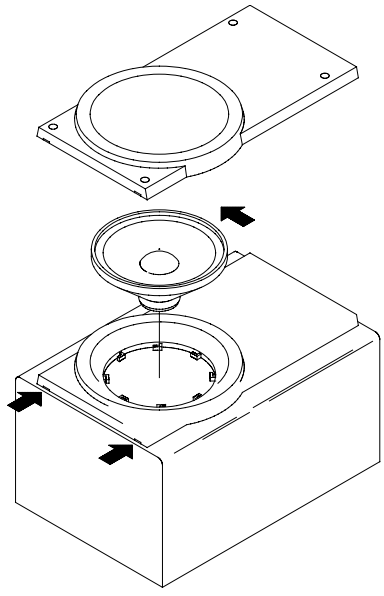
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

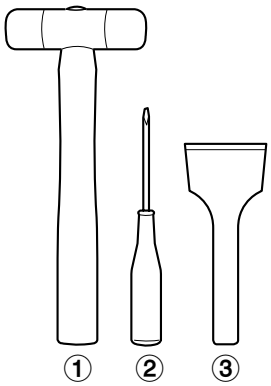


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



Type.4



TOOLS

① Plastic head hammer
② (⊖) flat head screwdriver
③ Cut chisel

How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

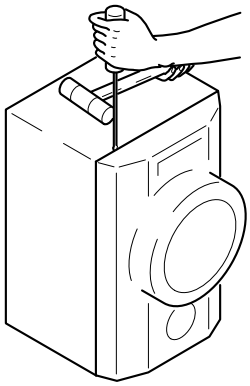


Fig-1

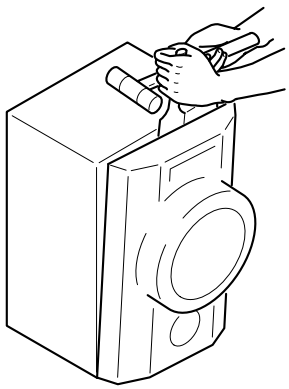


Fig-2

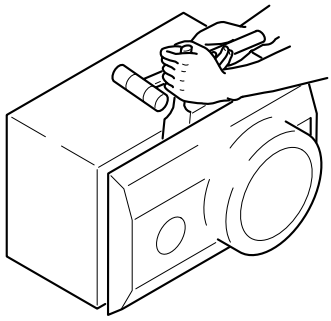


Fig-3

How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

SPEAKER PARTS LIST
SX-WNC303 (YLSL,YUSL)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-DS8-001-010		PANEL,FR<YL>
1	8A-NS8-011-010		PANEL,FR U<YU>
2	8A-DS8-004-010		PANEL,DUCT
3	8A-DS8-009-010		PROTECTOR
4	88-NS5-610-010		CORD,SPKR
5	88-NS5-611-010		CORD,SPKR B/L
6	8Z-NSY-003-010		CORD,BUSH
7	88-NS3-029-010		CORD,BUSH L
8	8Z-NS7-602-010		SPKR,TW 160
9	8Z-NSY-604-010		SPKR,M 100
10	8Z-NSY-608-010		SPKR,CERAMIC ASSY
11	8A-DS8-005-010		GRILLE,FRAME ASSY<YL>
11	8A-NS8-006-010		GRILLE,FRAME ASSY U<YU>
12	8A-NSJ-006-010		BADGE, AIWA S35<YU>

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-DF8-902-010		IB,LH(ESP)M<LH>
1	8A-DF8-903-010		IB,U(ESF)M<U>
2	87-006-225-010		AM LOOP ANT NC2
3	87-043-115-010		ANT,FEEDER FM
4	8Z-NF8-701-210		RC UNIT,RC-ZAS01
⚠ 5	87-A91-017-010		PLUG,CONVERSION JT-0476<LH>

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